

THE COMPLETE SCALE AIRCRAFT REFERENCE MAGAZINE

MODEL

AIRCRAFT

Monthly

RAF Chinook Colours

Sabres Worldwide

Colourful P-40's

Bell 412

Sukhoi Su-15

The Fiat G.212

RNZAF UH-1 Iroquois

Nakajima Ki-43 Oscar

Mitsubishi Ki-15 Sonia

Douglas D-558-I Skystreak

Volume 2 Issue 2 February 2003 £2.95



Mig-3
Fold Out
SCALE PLANS
INSIDE



NZ3814 in what is now the standard scheme, applied in full, green/green/grey overall, with low-viz roundels, black serials titles, toned down black stencils, and plain red first aid cross. The forward cabin door is fitted, and this time has a window in it. Black rotor head

Photo Album

RNZAF UH-1 IROQUOIS

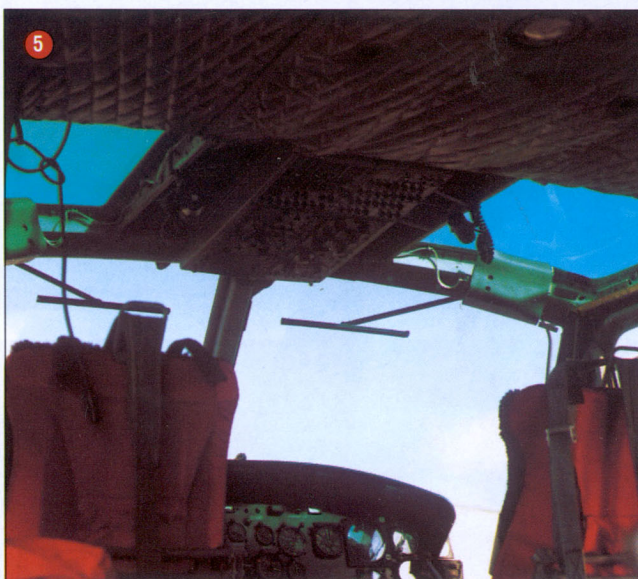
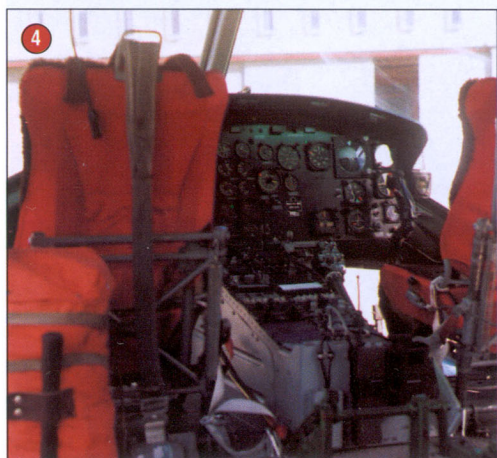
By Paul Adams

1. RNZAF in the green/green/grey scheme, with low-viz roundels. Upper and lower cable cutters, defectors each side of the windscreen, with a central strip running down the middle of the windscreen. The half round objects on the cockpit and cabin roof are air intakes. Titles, serials, and door opening instruction stencils are all in black. The small forward cabin door does not have a window in it

2. NZ3813, the landing skid incorporates a step for access to the cockpit. The cabin steps are a more recent addition. Note the ring just above the forward skid leg, and the lower port navigation light

3. NZ3813, the interior is basically light grey, with yellow door and





window outlines. The frame on the floor is emerald green. The warrior in the squadron badge faces forward on the port side, the handhold in the cabin roof is directly below the upper navigation light

4. The cockpit, including the seat frames, is light grey, with a black instrument panel and control columns. The seats are orange with brown covers and light greyish belts. The fire extinguisher by the pilot's seat is yellow with black data panels

5. The cabin roof is padded. The cockpit roof has green tinted windows, between which is a large bank of stitches. The windscreen wipers are standard

6. The cabin interior is light grey with olive grey/green padded walls and roof. The seats comprise light grey frames, with green/brown fabric, and khaki drill straps. The windows in the doors are outlined in yellow. The stenciling is also yellow; top to bottom this reads, on a black background panel: EMERGENCY EXIT, NORMAL EXIT, an aft pointing arrow, TURN SLIDE, then a yellow outlined black box, and on long black stripes LIFT HANDLE TO JETTISON WINDOW. The bar along the bottom of each window is black, with a black and yellow striped handle

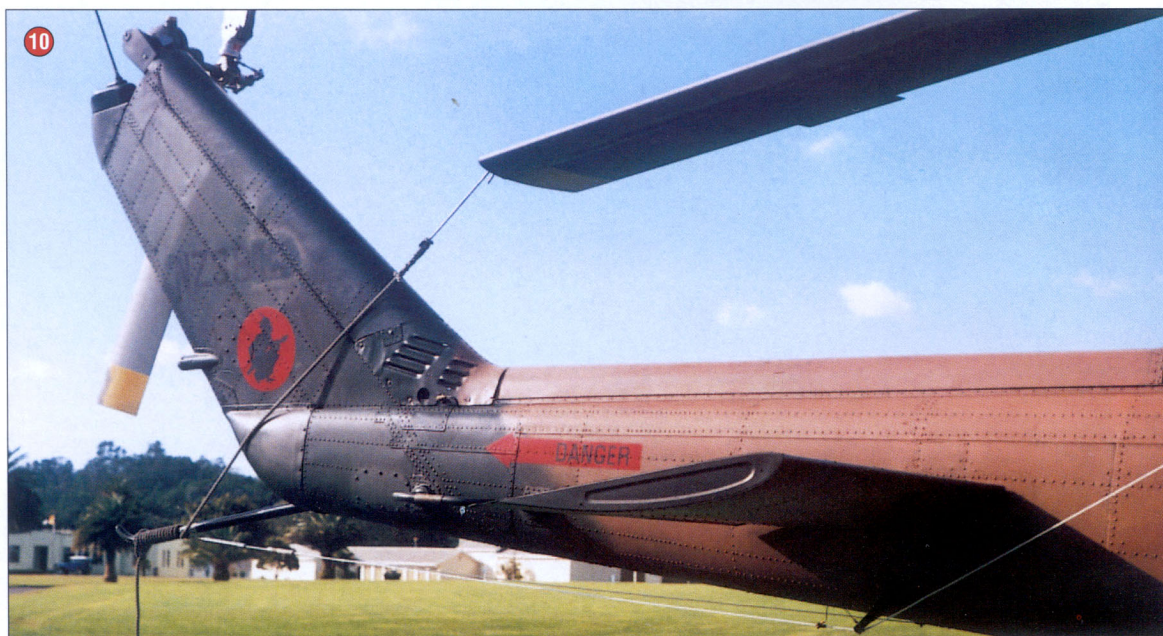


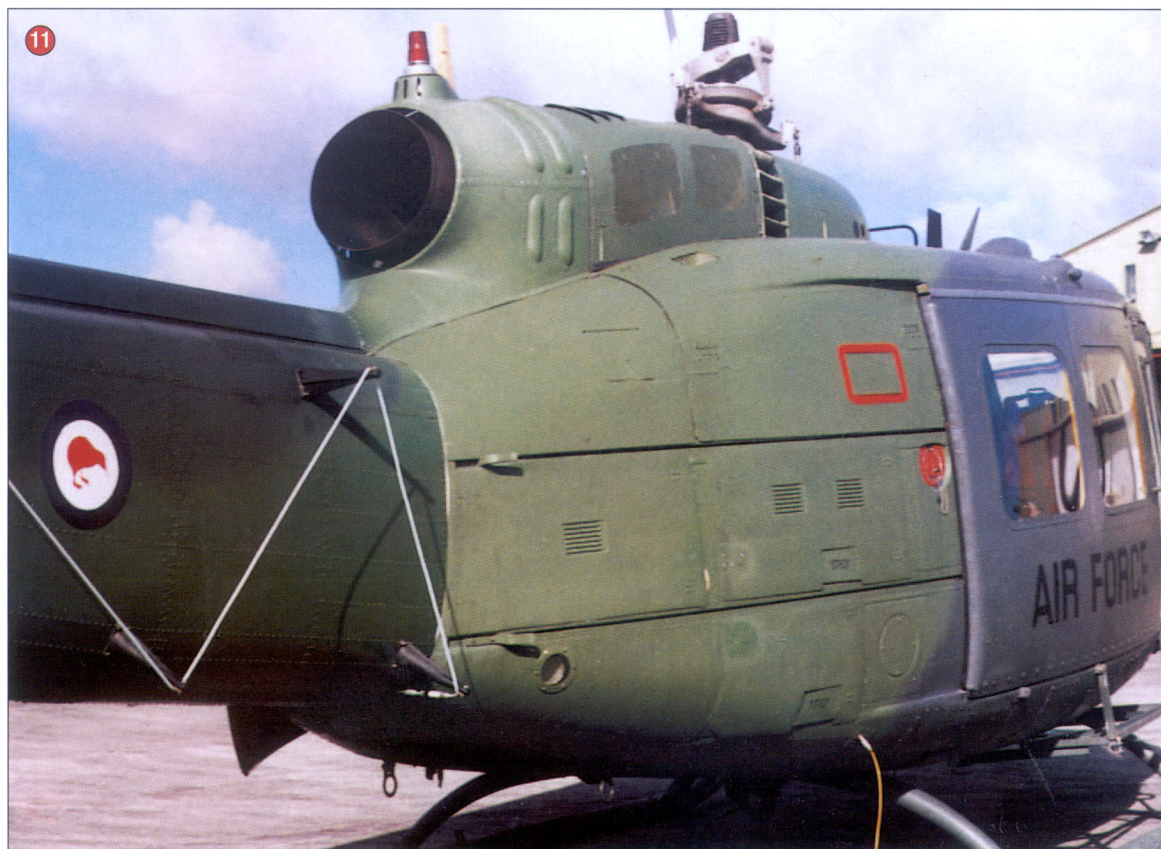
7. NZ3813 has a mixed, four-tone colour scheme. A green/green/grey fuselage, and a green/green/tan tail boom, with high-viz Kiwi roundels. The aerial mounts are black, with white aerial wires

8. The Maori warrior on the tail rotor pylon is black on red, the squadron colours, and faces forward on both sides. The tail light is white

9. NZ3813 showing off the hybrid, four-colour camouflage scheme. The aerial wires zig-zag down the tail boom, and converge at the tail skid. Handle-type aerials are positioned just below the DANGER arrow. The main and tail rotor blades both have yellow tips

10. NZ3813, with black on red DANGER arrow, and forward facing warrior badge. The stabiliser has an upside down airfold section. The openings at the base of the tail rotor pylon are to allow cooling of the tail rotor bevel drive gearbox



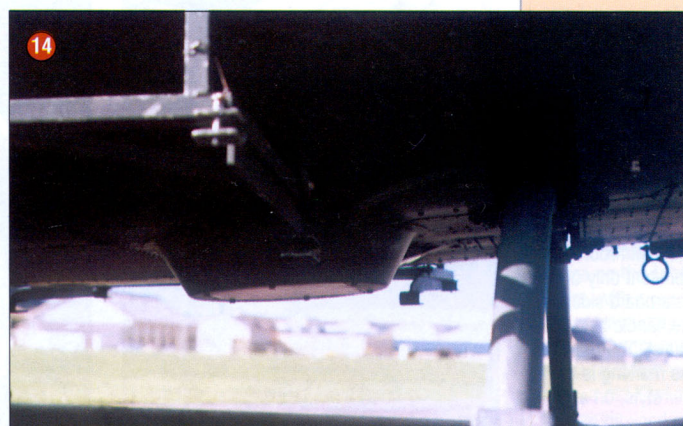
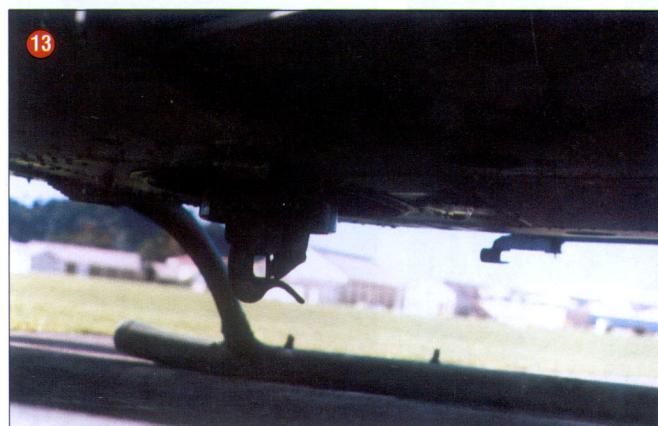
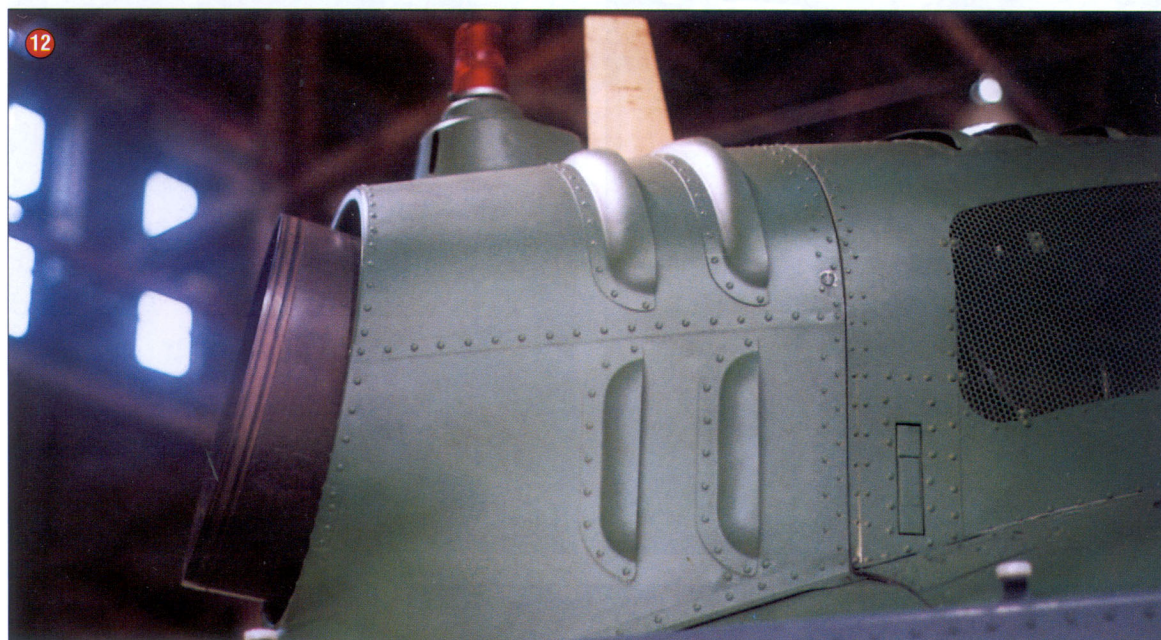


11. NZ3813 shows the green/green/grey fuselage, and three-colour Kiwi roundel. The white aerial wire plugs directly in to the tail boom by the front support. The open rectangle on the fuselage and the refuelling point cap are both red. Just aft of these are two steps, marked STEP in black. The two angled metal strips at the rear of the fuselage are to prevent cabin doors moving too far aft. Below these are the rear pair of rings, one each side

12. The exhaust pipe is a worn bronze, brown colour. The anti-collision light is clear red. The blade aerial just ahead of it can be cream, as here, or black

13. The cargo hook on the underside is a standard fitting, being mounted in a small, circular well

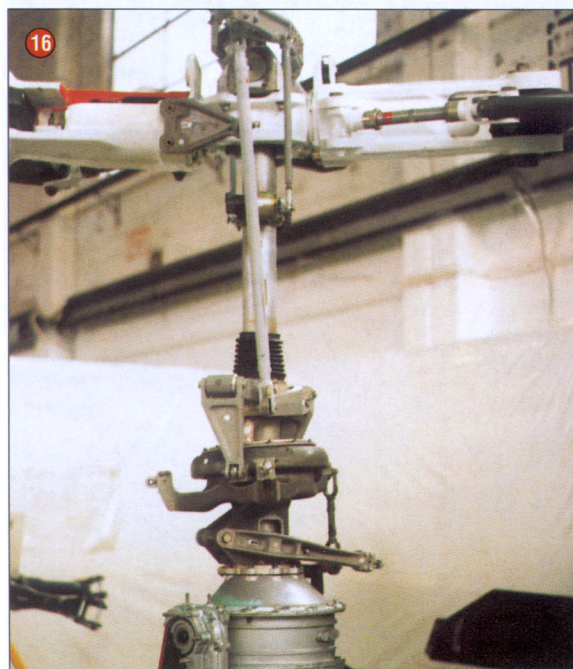
14. In line with the front of the cabin steps is a circular Doppler housing. The skids fit in to recesses on the underside; ahead of these are the front pair of rings, one each side, matching the aft pair



15. NZ3813, the double side-mounted navigation lights, red to port and green to starboard, are a standard fitting, but the cabin steps, followed by the cable cutters, are more recent additions. On the starboard side the warrior in the squadron badge faces aft. The fire extinguisher stencil is red, while the instructions by the door handle in yellow comprise TURN PULL, with a curved upward pointing arrow. The red cross now lacks the previous white backing square. The opening instructions by the handle on the main door on NZ3813 are yellow on the port side, and black on the starboard side. The small forward cabin door is not fitted



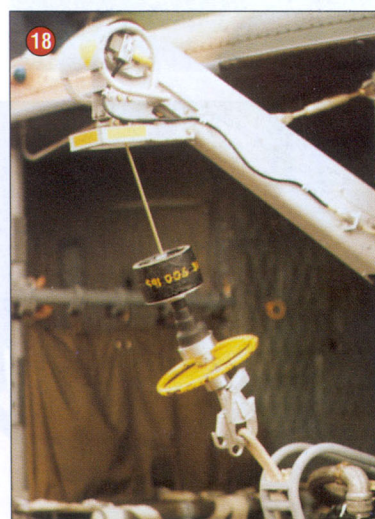
16. An Iroquois main rotor displayed on its own. The colour is mostly aluminium or light/medium grey. The rotor head to which the blades themselves are attached is gloss white



17. NZ3809 at Whenuapai in the mid-1980s, with a rescue hoist fitted in the cabin, just behind the pilot's seat. The colour is light grey except for the object covered by the guard which is black, with a black head and yellow 'wheel'. This is fixed to the cabin floor and roof, and can be pivoted inboard so that the doors can be closed. A handhold is fitted just below the hoist, between the lower navigation light and the cabin entry step, on the starboard side only



18. The hoist is light grey with yellow stencilling. The seats are brownish green, with light grey frames, and khaki drill straps. The two steps, marked STEP in black, and the handhold at the top, allow access to the cabin roof and are present only on the starboard side, as is the handle below the hoist. The red cross marking is the earlier style, on a white background





19. The 3 Squadron badge is gold with black detailing and a white centre circle and outline, on the cockpit doors. The lettering is gold on blue. The Maori warrior is reddish brown with black details and hair, brown skirt, and white belt with two red and two black zig-zags. The spear is reddish brown, with white feathers, and a greenstone head. On this aircraft the fire extinguisher and door opening instructions are black

20. NZ3813 showing the upper cable cutter, side mounted cable deflectors, windscreen wipers, blade aerial (black or white) and pitot

21. Nose title and 'last two'. Lower cable cutter with angled supports. Just behind this, off-set slightly to starboard (actually between the cutter itself and the right support strut) is a gloss light grey fairing. A thin metal strip with a notch in it is off-set to port, by the port downward vision window. The structure in the nose is the same light grey as the rest of the interior



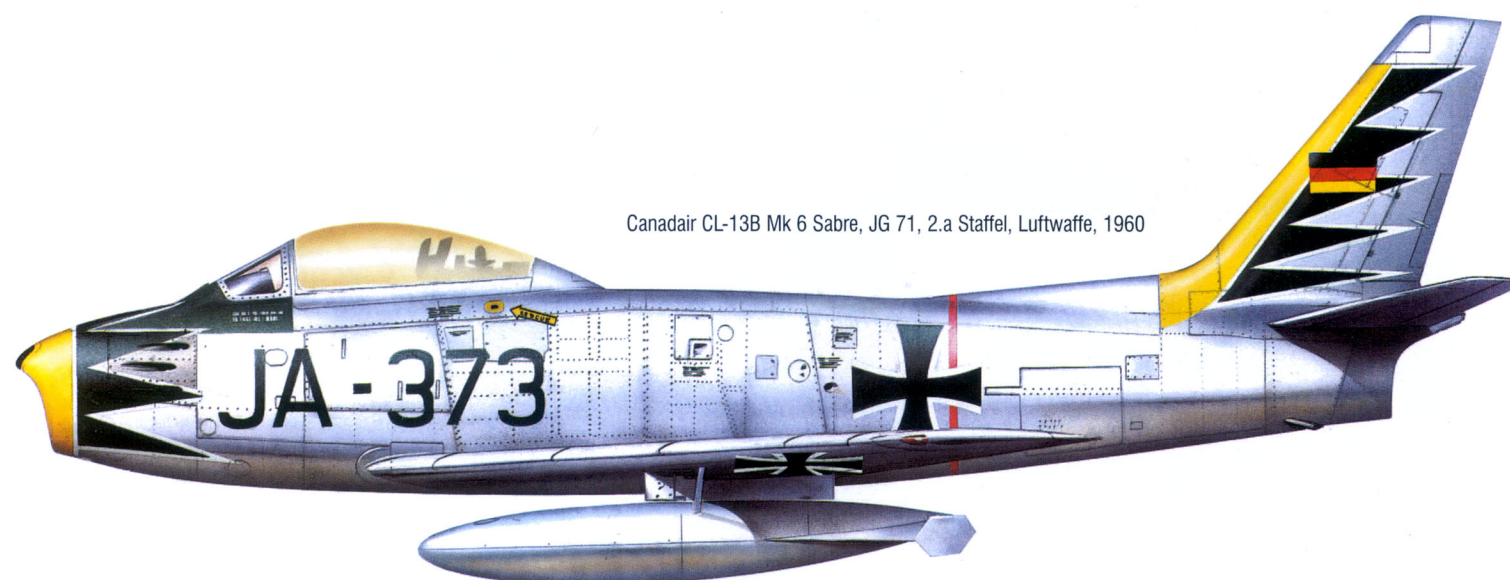
22. The lower cable cutter, twin support struts, light grey fairing and notched strip



23. NZ3806 in the green/green/grey scheme with incomplete tail markings – the Maori warrior was not worn on the tail rotor pylon, although it did have the red backing circle. This was the same on both sides. The handle type loop aerial has pink bases, again on both sides



24. NZ3811 also shows incomplete markings, and a four-colour camouflage scheme. The fuselage is green/green/tan, without the squadron badge on the cockpit doors, with a green/green/grey tail boom. The roundel is the current low-viz style, a red Kiwi on a blue circle



Canadair CL-13B Mk 6 Sabre, JG 71, 2.a Staffel, Luftwaffe, 1960

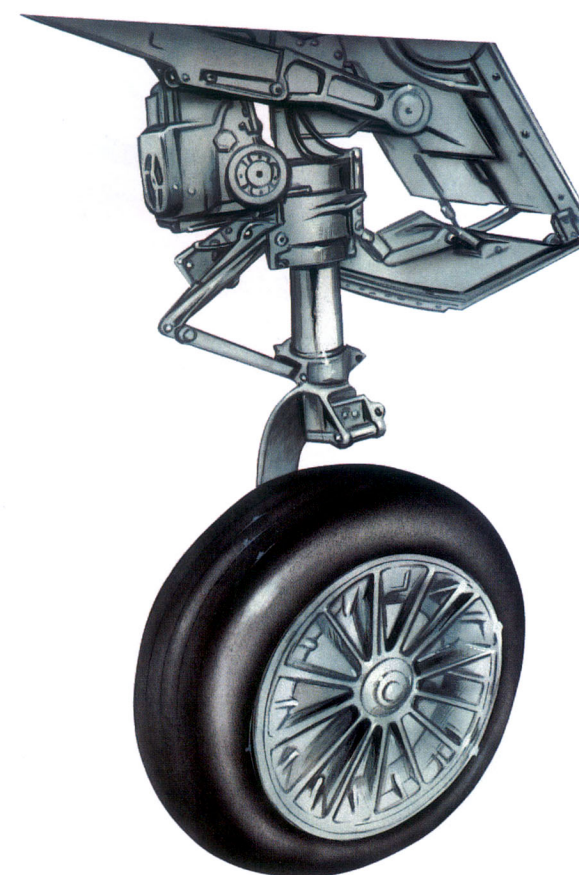
Sabres Worldwide

by Michele Marsan

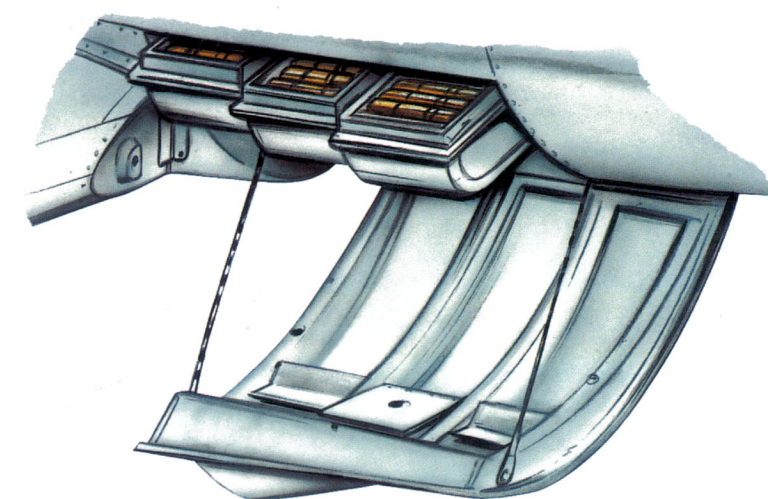
The first swept-wing aircraft in the US fighter inventory, the F-86, scored consistent victories over MiG fighters during the Korean War, accounting for a final ratio of 10-to-1. More than 6,000 F-86s were manufactured by North American's Los Angeles and Columbus, Ohio, divisions. Four models of the aircraft (F-86A, E, F and H) were day-fighters or fighter-bombers, while the F-86D, K and L versions were all-weather interceptors. Successive models of the daylight versions were equipped with more powerful engines and armament systems that ranged from bombs and rockets to machine guns and cannon. All were rated in the 650mph class with a 600 mile combat radius and a service ceiling of over 45,000 feet. The three interceptor versions sported radome noses, replacing the yawning jet intakes of the other models. The K model, manufactured in Turin, Italy, by Fiat, was flown by NATO forces. The F-86L had added equipment for use in conjunction with the US SAGE (semi-automatic ground environment) defense system; US production of the Sabre ended in December 1956. Complete coverage of all versions and the operational history of the Sabre is not possible in the limited scope of this article, so I'll start with some words about the first service version, F-86A, and the radar-equipped F-86D and F-86K.

F-86A

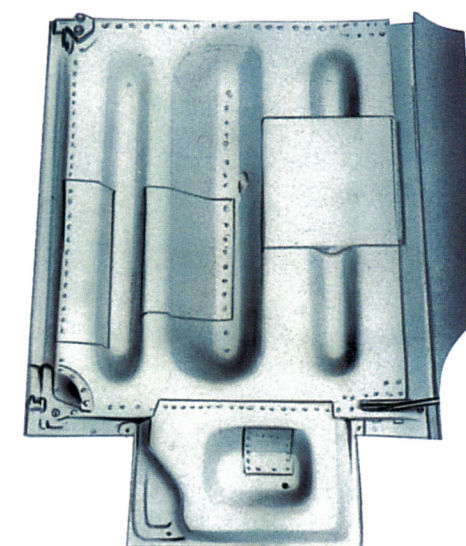
The F-86A depicted in my line drawing sheet 1 did not have the all-flying tail featured on the F-86 after the E version, and still has the standard wing. On the same sheet I have added a F-86H-5 nose, a fighter-bomber version with four cannon and a F-86D-style canopy. Sheet 2 offers a plan view of the aircraft as well as the 6-3 wing, a complex area of the F-86 which is a frequent source of questions from modellers. The slight



F-86A/E/F nose landing gear, viewed from rear

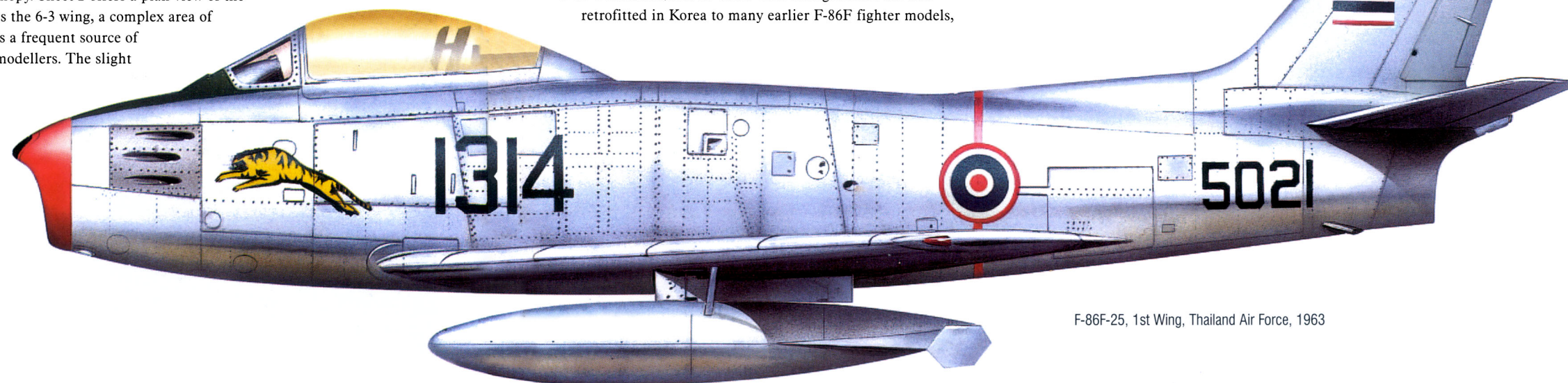


F-86A/-/FE ammunition bay at the wing root



F-86A/E/F nose landing gear door

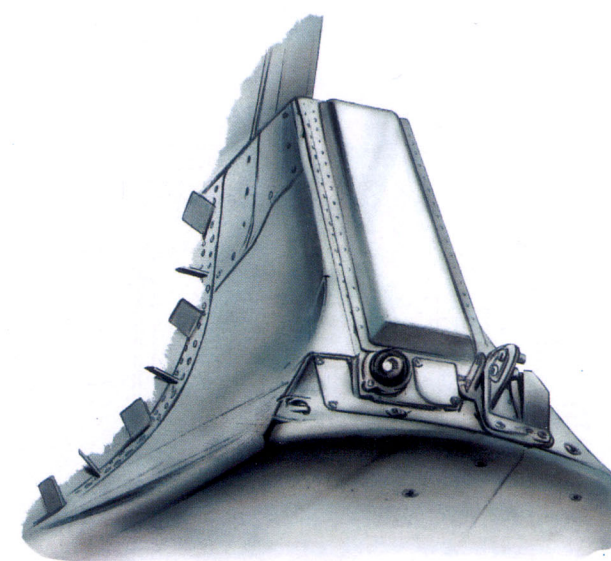
differences among the various types, plus the retrofitting of the '6-3' wing configuration means that a photograph is the best confirmation as to which wing is correct for each airframe. The standard narrow-chord wing was fitted to early-model Sabres, forming the standard fit of the XP-86, F-86A, F-86E and F-86D Sabres. It was also fitted as standard to Canadair Sabre Mk 1 to 4. It was fitted on all F-86Fs up to F-86F-25 S/No. 51-13340 and F-86F-30 S/No. 52-4505. Finally, it was fitted on all NAA and Fiat-built F-86Ks prior to S/No. 56-4116. The '6-3' wing, extended in chord by 6 inches at the root and 3 inches at the tip did not have leading edge slats but did have a small fence installed mid-span and this was fitted to F-86F-25s from S/No. 51-13341 and F-86F-30s from S/No. 52-4505. This configuration was also retrofitted in Korea to many earlier F-86F fighter models,



F-86F-25, 1st Wing, Thailand Air Force, 1963



F-86F-25, 6th Fighter Squadron, Philippine Air Force, 1965

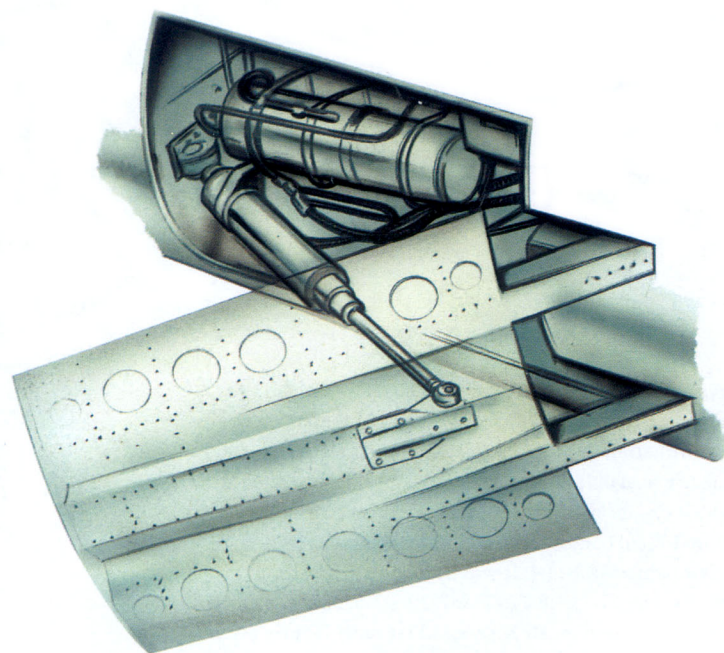


F-86 K tail section with drag chute

plus a few F-86Es. The '6-3' wing was also fitted to the Canadair Sabre 5 and modified onto some RAF Sabre 4s. It was also fitted to Sabre 2s modified to F-86E(M) standard for the Greek and Turkish air forces, and to ex-RAF Sabre Mk 4s for the Italian, Yugoslav and Honduran air forces. A modified '6-3' wing was fitted to some F-86Hs.

Now for the extended-span F-86F-40 wing. Pioneered on the F-86F-40 export model, this wing, extended in span by 12 inches and featuring the '6-3' chord change, was later fitted to many other Sabre variants. It was part of the F-86L modification programme and the better performance of the slatted, extended-span wing also led to retrofits on F-86Fs in USAF service during the late 1950s. The majority of F-86Fs passed to foreign nations via the USAF also had this wing fitted prior to delivery. Late-model and retrofitted F-86Hs also featured the 'F-40' wing, as did the last 45 Fiat-built F-86Ks for the Luftwaffe. Again, early F-86Ks were retrofitted. Finally, the Canadair Sabre 6 Wing. Featured only on the Canadair Sabre 6, this short-span '6-3' wing made up for poor low-speed handling characteristics by reintroducing slats to the leading edge.

The line drawing on sheet 3 is of a F-86D profile and nose. This 24x FFAR rocket-armed version was actually a 'panic fighter' intended to facing the Russian bombers menace better than the F-89 and F-94 fighters, 2,504 were produced. But the nose sketch and front view depict a K version, the most interesting variant to me. This aircraft, intended to equipping NATO countries under MDAP programme, incorporated a fire control system in place of the still-secret Hughes E-4 system, although it did not work as well. The equipment, known as the MG-4 fire control system was linked to an AN/APA-84 computer, which would provide intercept information to a cockpit-mounted scope as in the F-86D. To give a back-up to this system, the aircraft would have an A-4 gun/bomb/rocket sight for manual control. The design was modified to accept the specified four 20mm cannon armament in place of the rocket system, but differences in weight between the two installations required a forward fuselage extension to regain the centre of gravity. Apart from this the new aircraft, accepted by AMC as the F-86K, differed little from the F-86D, and was fitted with an afterburning J47-GE-33 engine of 3,469kg. thrust. Fiat, in Italy, signed a license production agreement under which



F-86A/E/F airbrake door, actuator and well

F-86Ks would be built at the company's Turin-Caselle plant from US-supplied components. Meanwhile North American began construction of 120 NA-213 F-86Ks to cater for delivery of this type to Norway and the Netherlands. Fiat-assembled 165 machines which equipped the French and German air forces, as well as that of the Italians. At this point I would like to add a few words in remembrance of my uncle, Simeone Marsan. He was the Fiat F-86K programme chief test pilot and first Italian Mach-1 pilot, all of which followed a career as an aerobatic pilot in CR.32s in the thirties, the war years in the desert flying Macchi 202s, and the post-war years as a test pilot, involved in the G.91 project as well as in all major Italian aviation programmes. The last Turin-built Sabre was received by the Luftwaffe in June 1958. Ironically, by this time, it had been agreed that the F-86D and its fire control system was suitable for export. Line drawing sheet 4 is a plan view of a F-86D with the standard wing, a F-40 wing and an inverted plan of the F-86K tailplane, with added fences acting as vortex generators to increase efficiency; these were also added to the sides of the tail section.

The first profile (page 10) is of a German Canadair 6, a version of the F-86E (and it reminds me of the art by Eric Carless on the ancient Frog box) Markings are from the famous JG 71 'Richtofen' Jagdgeschwader, with whom the Sabre served from 1959 until 1964. The new post-war Luftwaffe chose Canadair Sabres for day fighter



F-86A/E/F North American ejection seat

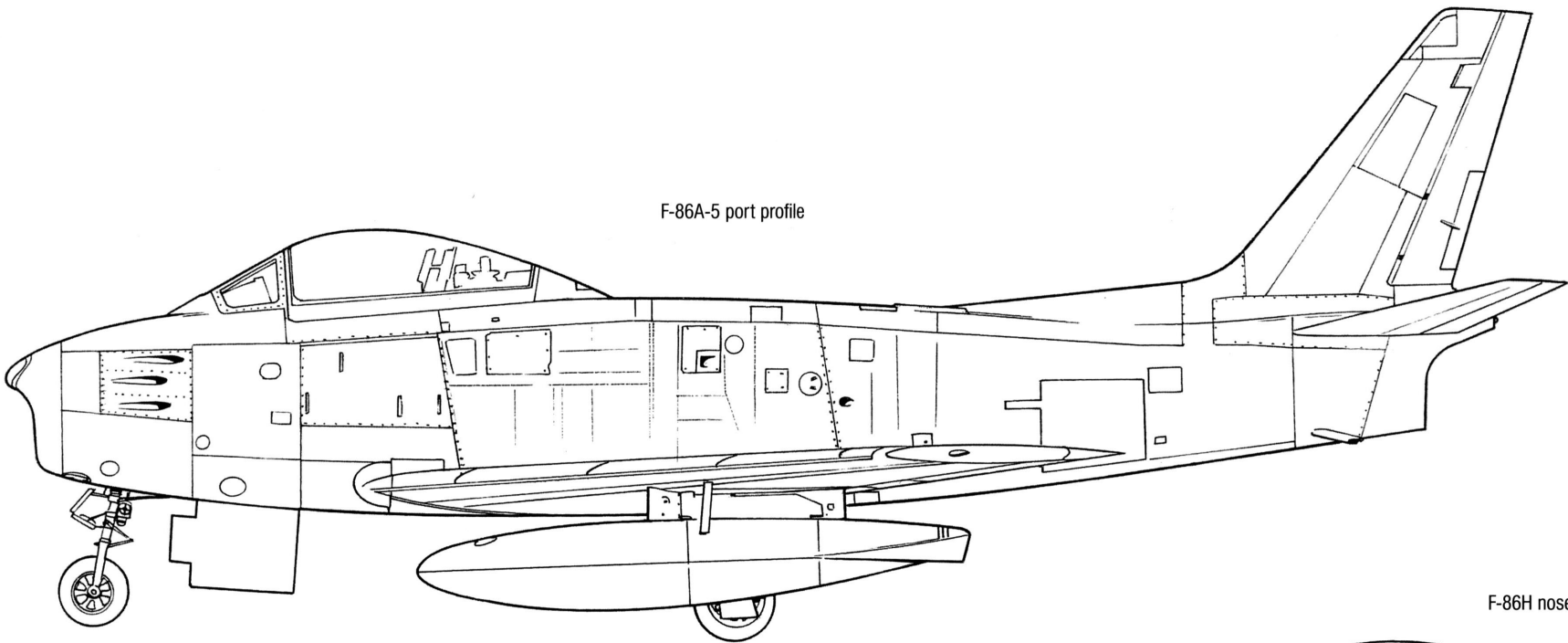
F-86D, 12th Fighter Wing, Republic of Korea Air Force, 1968



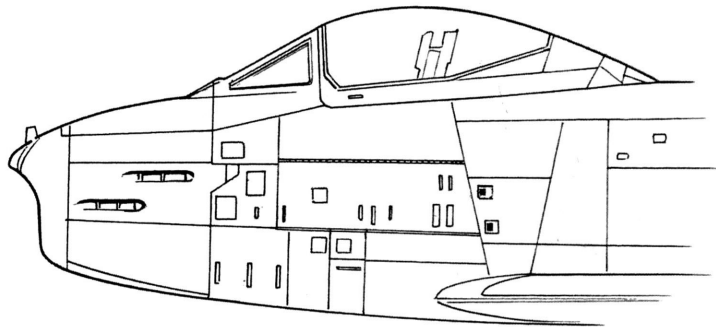
North American F-86A Sabre

1/48th scale

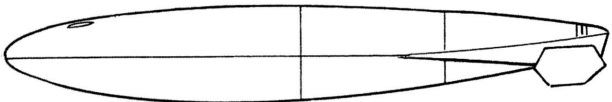
F-86A-5 port profile



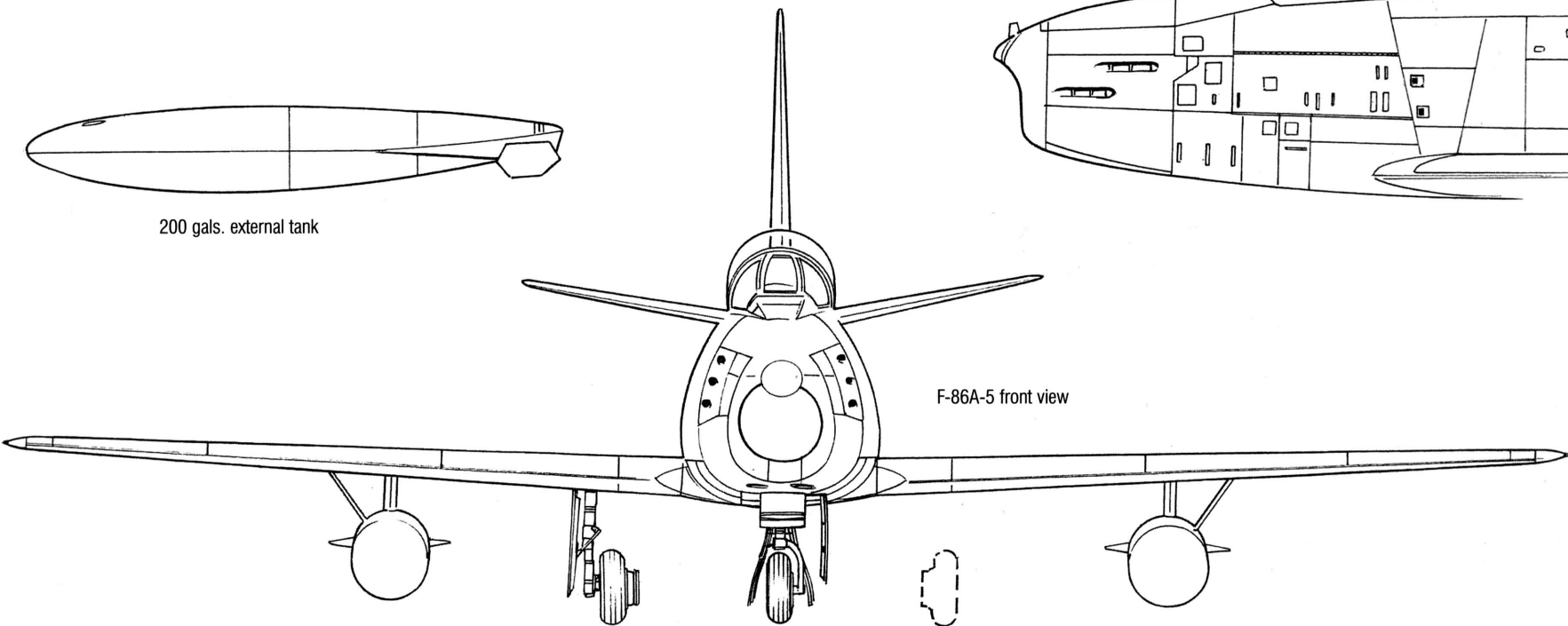
F-86H nose

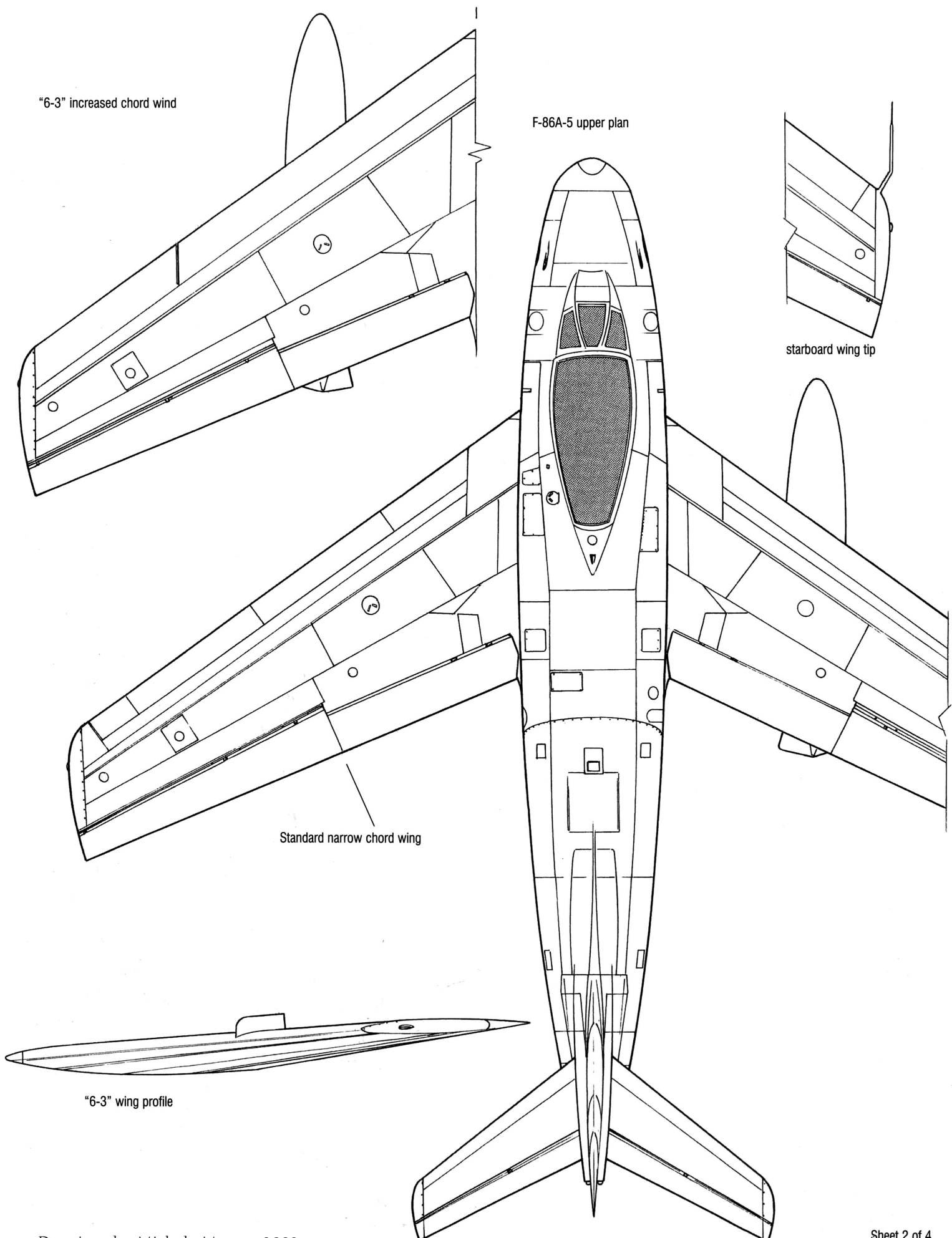


200 gals. external tank



F-86A-5 front view

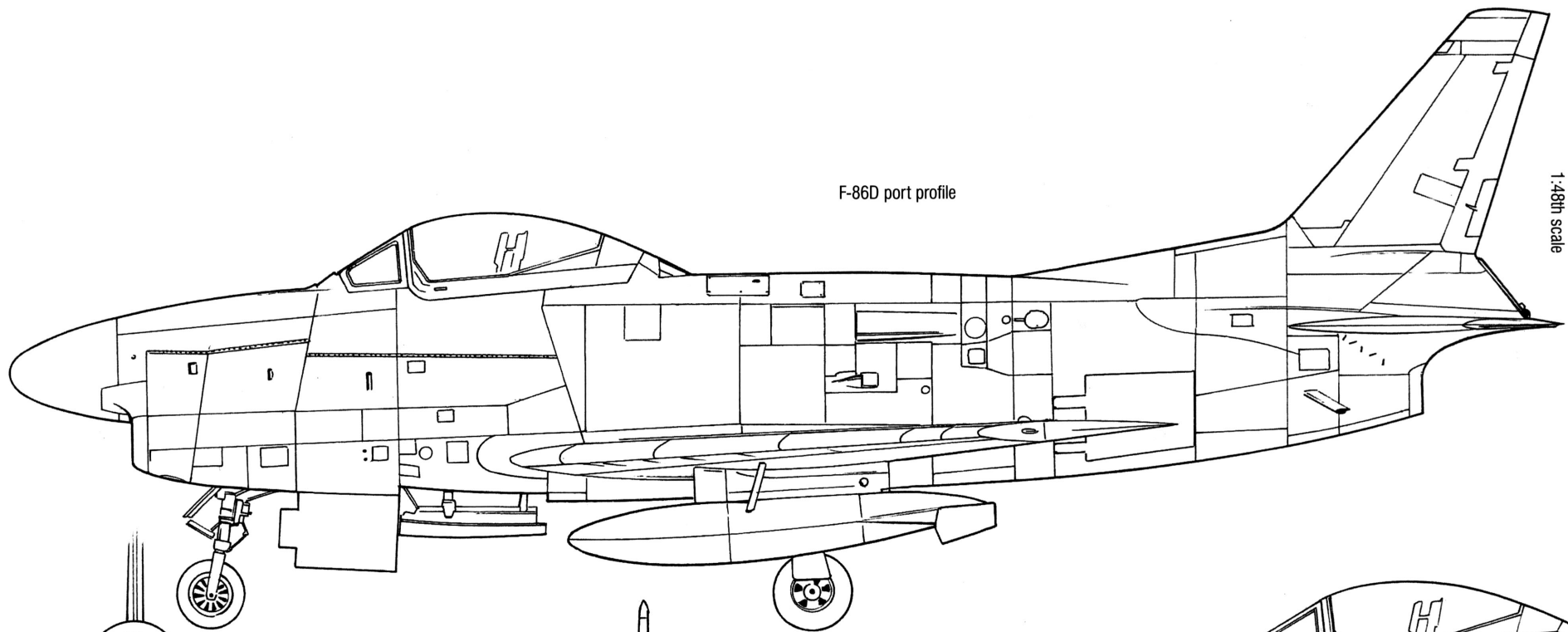




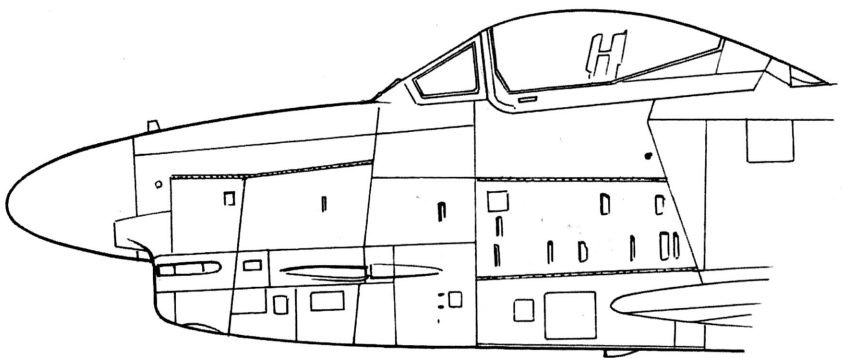
North American F-86D Sabre

1:48th scale

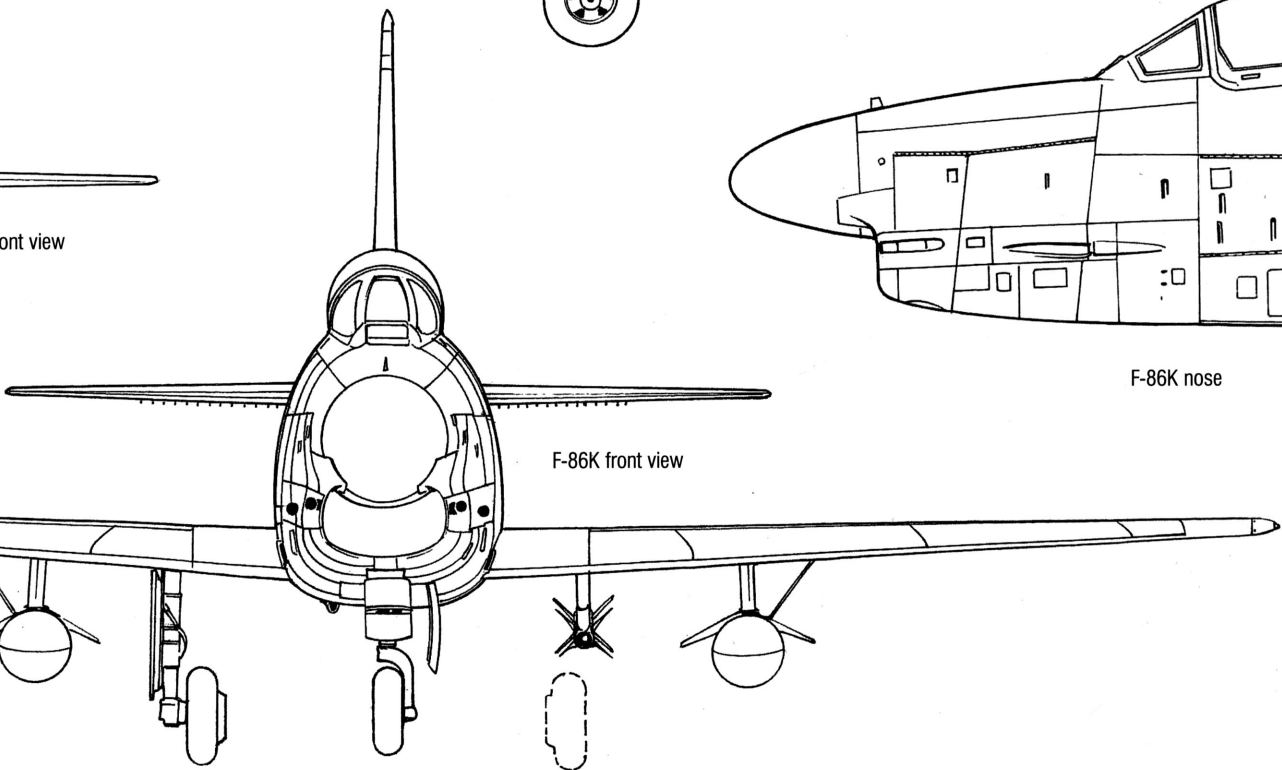
F-86D port profile



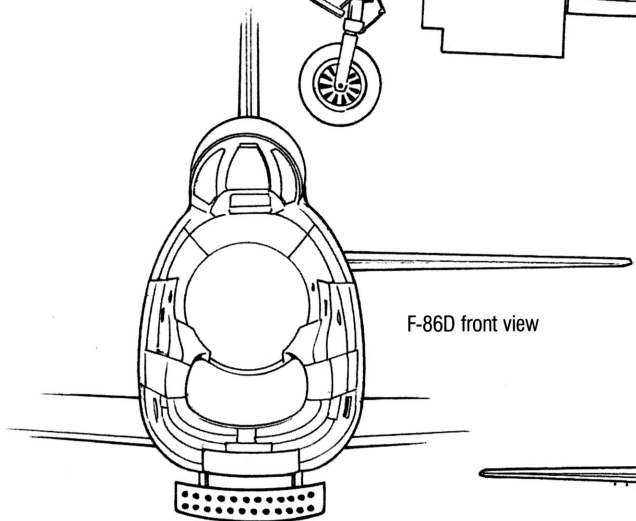
F-86K nose

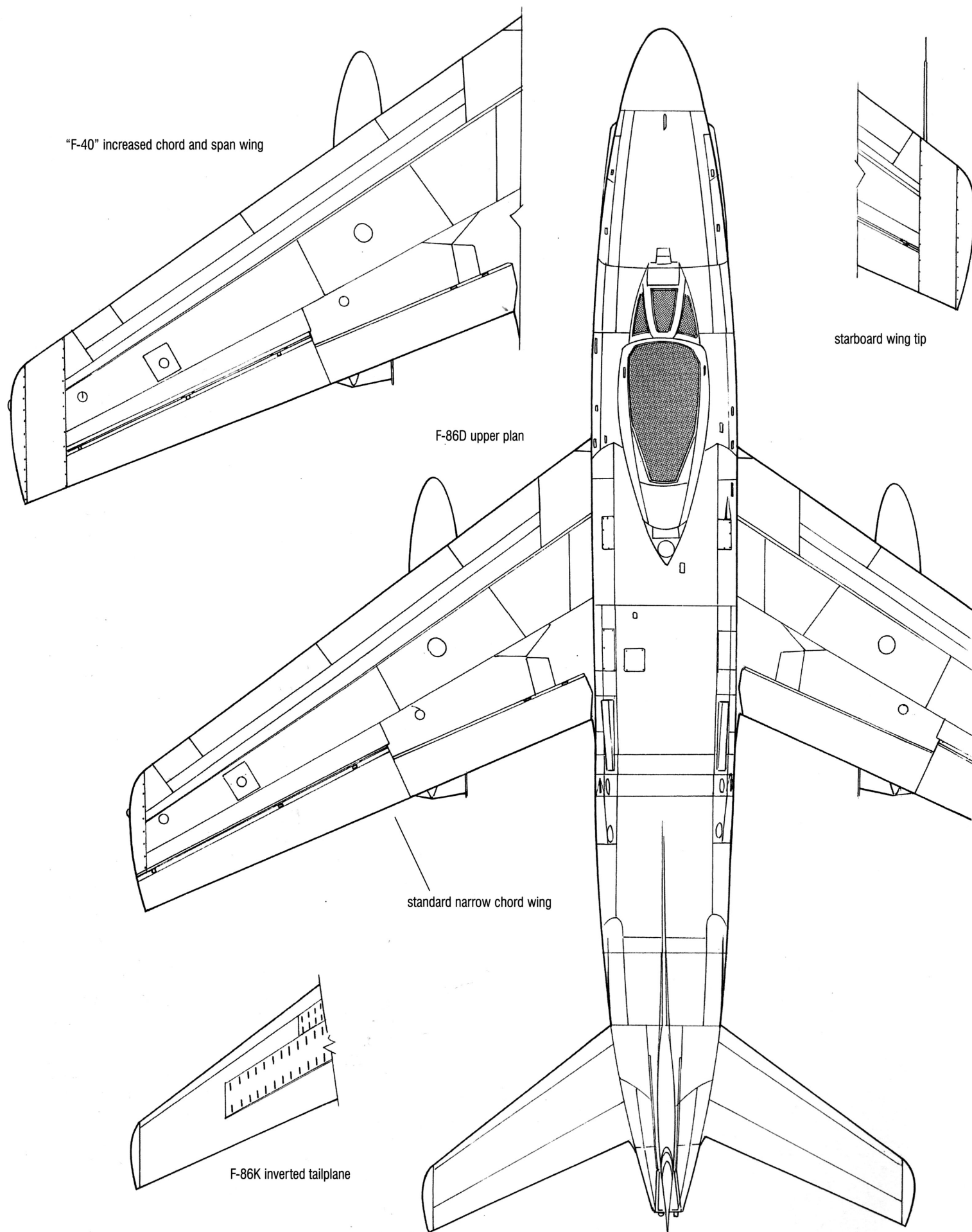


F-86K front view



F-86D front view

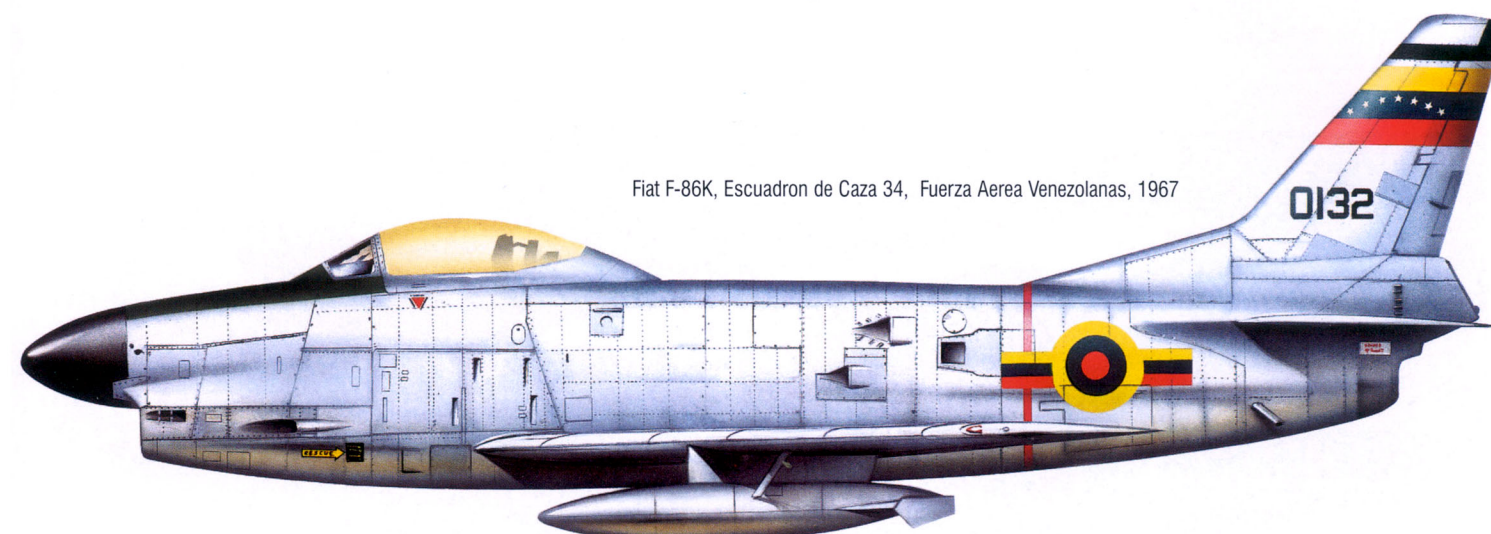




North American F-86K, 334 Skv, Kongelige Norske Luftforsvaret, 1964



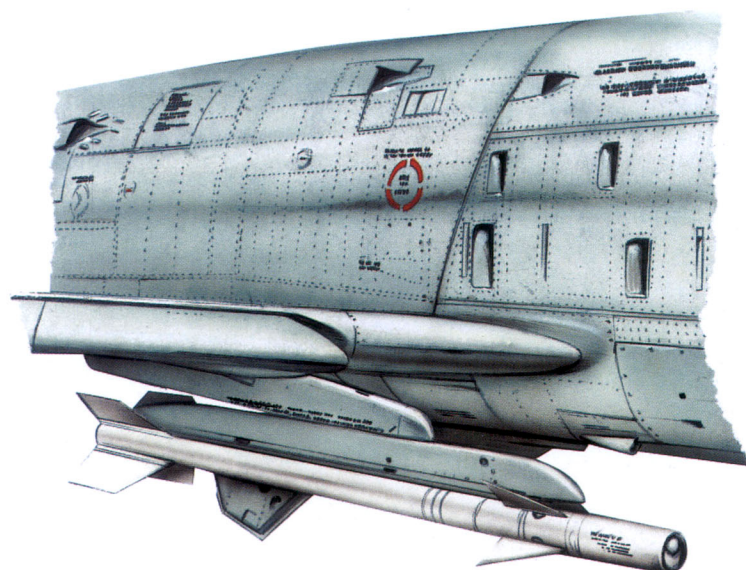
Fiat F-86K, Escuadron de Caza 34, Fuerza Aerea Venezolanas, 1967



mission and F-86Ks as all-weather interceptors. The German Air Force under the MDAP program procured 225 Sabre 6s, plus 75 Sabre 5 from Canadair to equip three fighter wings, JG71 being the first in 1960. Later all the machines wore a camouflaged finish, as did the F-86Ks, which performed the last Luftwaffe JG74 (F-86K) flight in 1966. Surviving aircraft and the crated spares were passed to the Venezuelan Air Force.

The profile at the top of page 12 is of a Philippine Air Force F-86F. This air force operated both the F and D versions, serving with the two main fighter units, the 6th and 7th Tactical Fighter Squadrons, and this particular machine is now a gate guardian.

Another Far-East user of the Sabre was the Thai Air Force. Many of their Sabres are now gate guardians, as is the



F-86K Sidewinder mounting pylon

machine shown, previously having served in the 1st Wing. As with many military Thai aircraft, different numbers are carried on the fin and on the fuselage (page 10/11).

For the F-86D colour profile I have chosen a South Korean machine (page 12/13). This Air Force has been one of the largest operators of the type up until recent years. The machine depicted was in the 3rd Fighter Wing and had the capacity to fire Sidewinder missiles, like the last batch of F-86Ks. Note that the lengthened air scoop on the fuselage side applies to both D and K models.

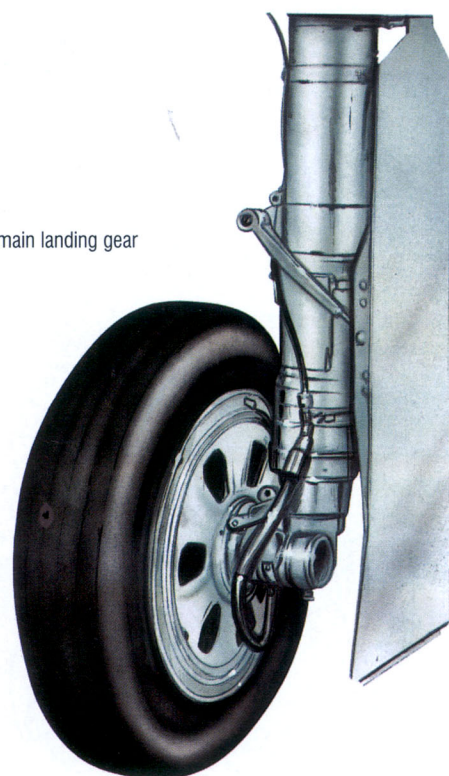
In 1955 sixty US-built F-86Ks were supplied to Norway, although some machines were subsequently lost in a hangar fire and were replaced by four Fiat-built F-86Ks during June 1956. My profile (page 18) depicts a North American-built airframe belonging to 334 Skv. F-86Ks began to equip the squadrons in 1955 and were withdrawn, in the autumn of 1964, when 332 Skv was disbanded. 334 Skv was therefore the last RNoAF unit to operate the Sabre, and retired its last F-86K on 15th July 1967.

In 1965, the Venezuelan Air Force (Fuerza Aerea Venezolanas - FAV) began negotiations with the West German government for the purchase of all seventy-three surviving Luftwaffe F-86Ks. F-86Ks flew with Escuadras de Caza 34 and 35, and later apparently replaced the F-86Fs too.

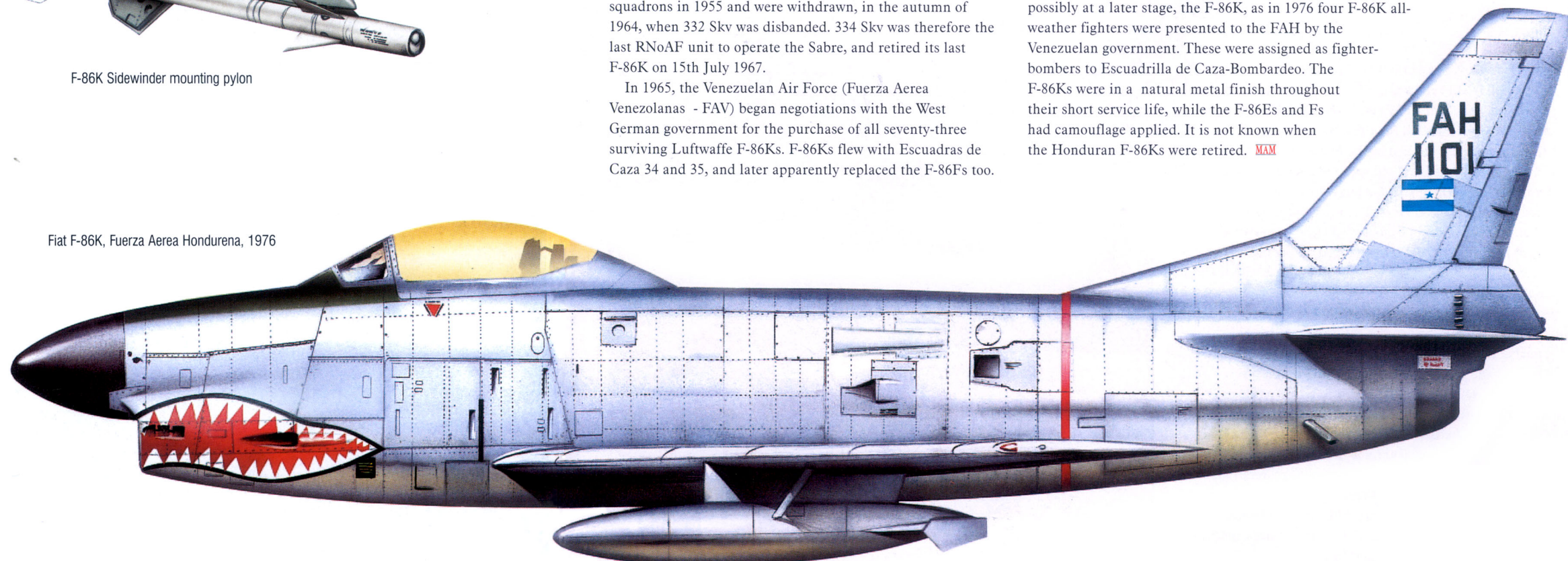
The FAV F-86Ks encountered many maintenance problems, a large number being grounded in July 1969 for hydraulic hose problems.

The subject of my last profile, '1101' belonged to the Honduras Air Force. Following the 1969 'Soccer War' with El Salvador, Honduras endeavoured to build up its air force, and the purchase of eighteen ex-Israeli Dassault Ouragan fighter-bombers by El Salvador in 1973 started a small arms race. The FAH managed to acquire a number of ex-Israeli Dassault Super Mystère B2 but with delays in their delivery Honduras decided to buy some ex-Yugoslav Air Force Canadair Mk 4s. In 1976 at least two F-86Fs were also supplied from Venezuela. The Sabres arrival coincided with that of the Israeli aircraft, and the Israeli officers trained the Hondurans in the operational use of the Canadair CL-13 Sabre, and possibly at a later stage, the F-86K, as in 1976 four F-86K all-weather fighters were presented to the FAH by the Venezuelan government. These were assigned as fighter-bombers to Escuadrilla de Caza-Bombardero. The F-86Ks were in a natural metal finish throughout their short service life, while the F-86Es and Fs had camouflage applied. It is not known when the Honduran F-86Ks were retired. **MAW**

F-86K main landing gear



Fiat F-86K, Fuerza Aerea Hondurena, 1976





SU-AFF being prepared for a flight
(Courtesy of the Aviation Heritage Museum of Western Australia)

Swansong

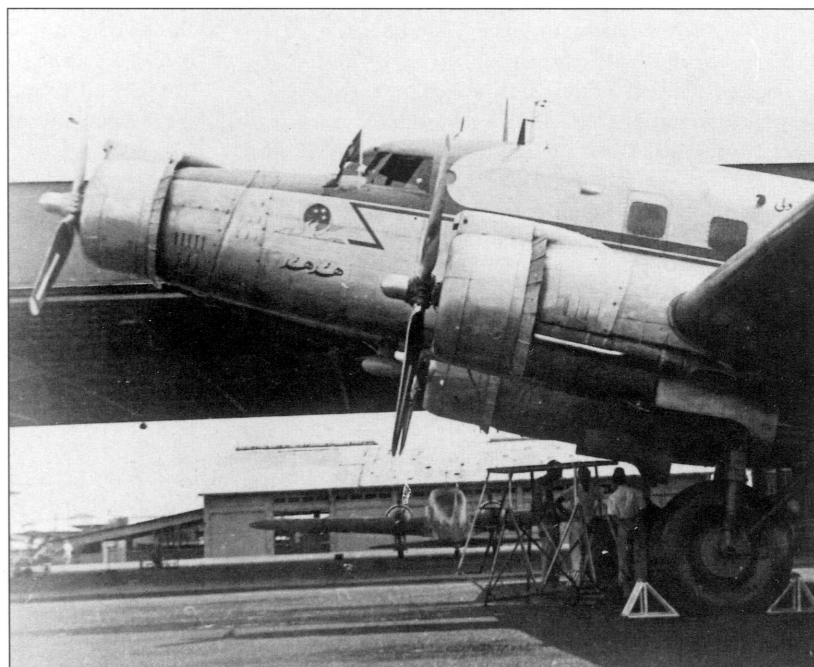
THE FIAT G.212

by Jim Grant

The end of a line of Italian three-engined airliners, the Fiat G.212 had its origins in a planned replacement for the twin-engined Fiat G.18s, a localised Douglas DC-2, operated in the 1930s by Avio Linee Italianae (ALI) which was partly owned by the Fiat Industrial Group. The chosen design, the Fiat G.12 with the dimensions and performance of the Douglas DC-3 but with a longer range, was powered by three radial engines. The prototype G.12 made its first flight in the middle of October 1940 (the exact date is disputed) and a total of 104 aircraft rolled off the production line over the next decade. The majority saw service with the Regio Aeronautica, and its successors, and production continued after the war with a variety of designations and different engines.

A total of forty-three aircraft of all models came onto the civil register and in the immediate post-war era they were operated by ALI, Compagnia Trasporti Aerei operating as Airone, ALI Flotte Riunite, Alitalia and Linee Aeree Transcontinentali Italiane (LATI). Due to the pressure of war work Fiat had had no opportunity to design a replacement to the G.12 and, if it wanted to continue supplying aircraft for Italian airlines, it had to update the design.

The first G.212 flew on January 19th, 1947 and despite its obvious similarity to the G.12 it had a longer, wider fuselage and extended wings giving an increased wing area. The



A nice nose shot of one of SAIDE's aircraft
(Courtesy of the Aviation Heritage Museum of Western Australia)



Note the unusual propeller markings
(Courtesy of the Aviation Heritage Museum of Western Australia)

fuselage had been widened to allow an extra row of seats to be fitted with one row on the port and two rows on the starboard side. This gave it seating capacity for thirty passengers over its maximum operational range and forty over short sectors. With its square windows, more rounded fuselage and better streamlining the G.212 was a purposeful and attractive design even though its tri-motor configuration was a relic of the 1930s. It was stoutly built of steel tubes and duralumin with fabric covered trailing edges to the wing, ailerons, rudder and elevators.

The G.212 was proposed in three civil versions, the CP Aeropolman Monterosa (passenger), the TP Avio Monvisa (cargo) and a sleeper version powered by three 1,065 hp Pratt and Whitney R-1830-SIG3-G14 radials, though the option of other engines was available. No TP cargo aircraft entered civilian service and the proposed sleeper version remained a paper project.

Nine civil G.212CPs are known to have been built, with two more, F-BCUV and BCUY, ordered by the Cie Air Transport; however if these were built there is no evidence that they were delivered to the French company. ALI took delivery of I-ELCE, ELSA, ENEA, ERBE, ERME and ESTE designated G.212CR. One aircraft I-ENEA was subsequently sold to Arabian Desert Airways and received the British registration G-ANOE. The last three new aircraft, SU-AFE, AFF and AGB were delivered to the Services Aeriens Intercontinentaux d'Egypt and based at Cairo. This company, despite its French title, was an Italo-Egyptian enterprise which obviously liked, or got a very good deal on, Italian aircraft for they also operated two Savoia-Marchetti SM-95s on the Cairo to Benghazi, Tripoli and Tunis route.

The civil G.212 was soon superseded by Douglas DC3-s and more modern designs and by the early 1960s the type was all but forgotten.. [MAM](#)

The sleek lines of the G.212 are obvious
(Courtesy of the Aviation Heritage Museum of Western Australia)





1. Looking down the Su-15 'flightline' at Khodynka museum in central Moscow. Formerly known as 'Frunze' this famous site is being sold off to developers and the aircraft are being cut up for scrap!

2. Another look along the line-up

3. 'Red 85' is a Su-15 'Flagon-A' - Note the conical radome and single nosewheel

Photo Album

SUKHOI SU-15

By Ken Duffey





4. 'Red 42' is another Su-15 'Flagon-A'

5. Two-seat Su-15UT 'Flagon-C' coded 'Red 50'

6. 'Red 37' is a Su-15T 'Flagon-D'. Note the twin nosewheels with different doors and the cranked wing leading edge

7. Starboard side view



8. Looking down at the rear end. Note the various engine-cooling intakes and compare with the machine behind. Also note the cranked wing leading edge and the antenna in the wing

9. General view of the intakes on the port side

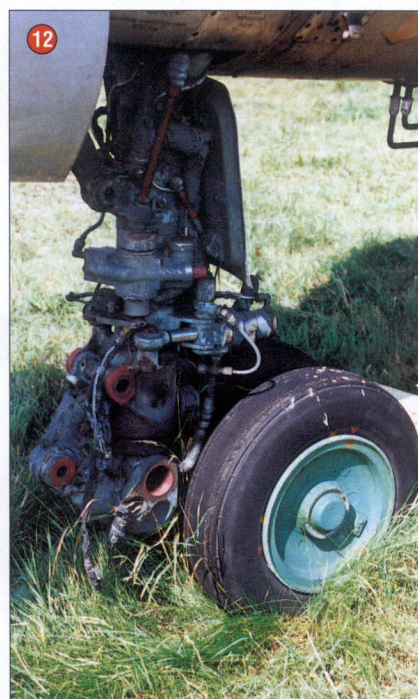
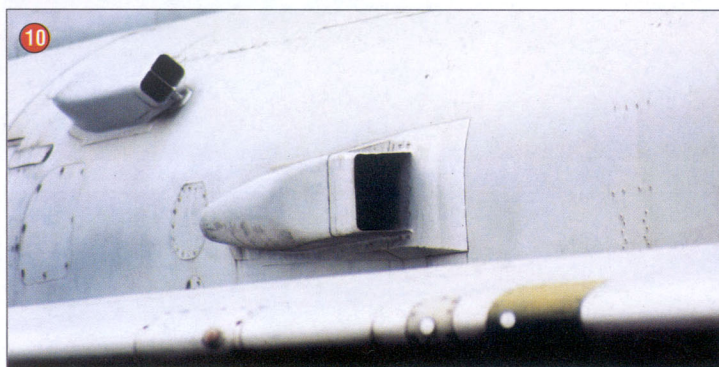
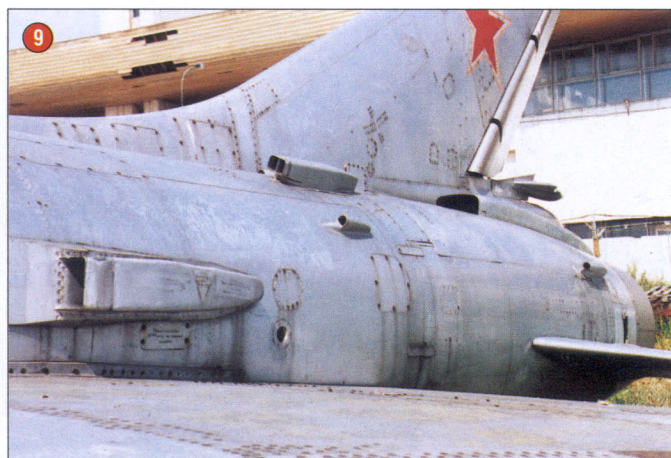
10. Close-up of the intakes on the starboard side and antenna in wing leading edge

11. Nosewheel door

12. Close-up of the twin wheels. Note that the oleo on this machine is collapsed

13. 'Red 01' is a Su-15 'Flagon-A'

14. Starboard side





15. Intake arrangement on 'Red 01'

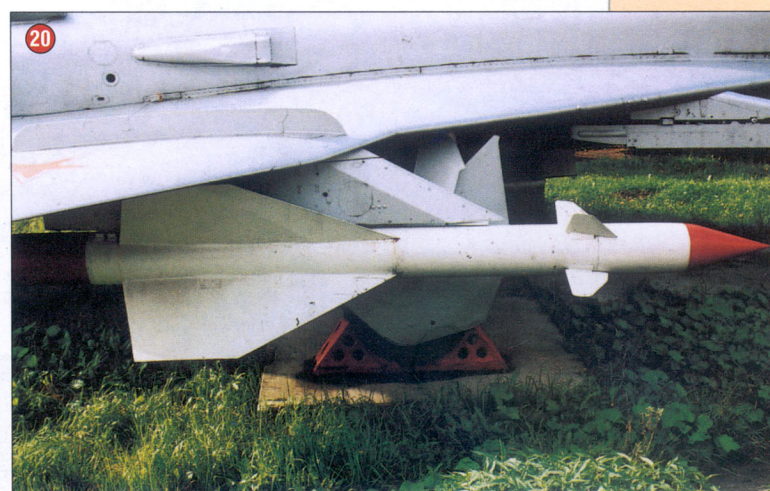
16. Single nosewheel and door

17. Nosewheel

18. Su-15TM 'Flagon-F' 'Red 39' at the Central Armed Forces Museum, Moscow. Note the ogival radome on this variant. It is pictured here in natural metal but has since been painted a flat aluminium colour

19. Looking up the jetpipe.

20. R-98R AA-3 'Anab' missile on the starboard outer pylon.



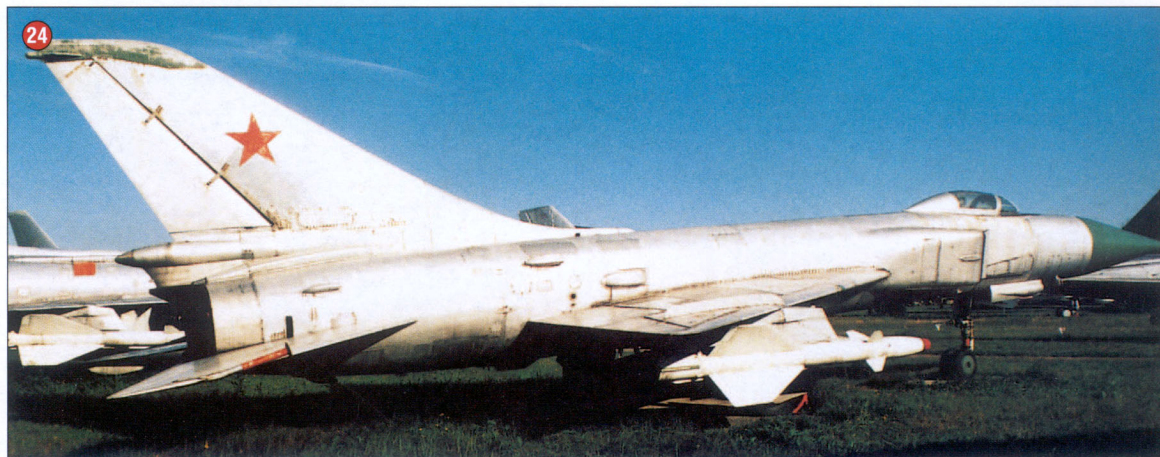


21. One of the prototype Su-15s, the T-58D-2 at the Russian Air Force museum at Monino. This machine differs from production Su-15s in having a narrower fuselage which makes the intakes stand proud. On production examples, the fuselage was widened

22. T-58D-2 port side

23. Rear end of unpainted machine - compare with photo 50

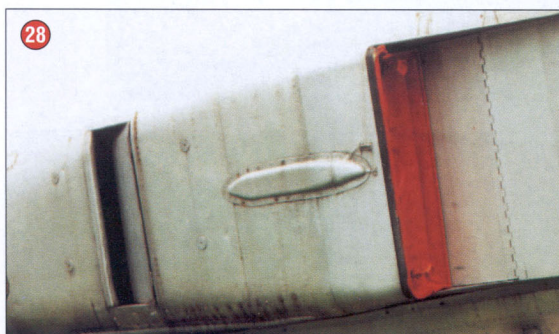
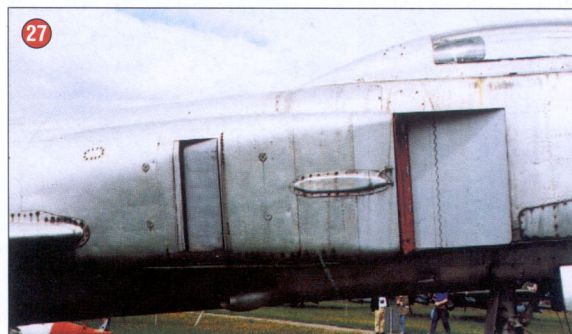




24. Note the shape of the intakes in this view and the different panel shades

25. Another view showing the intakes to good effect

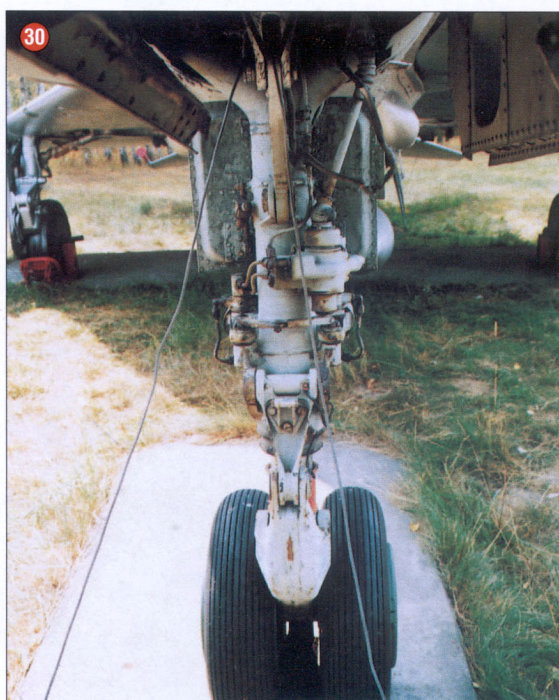
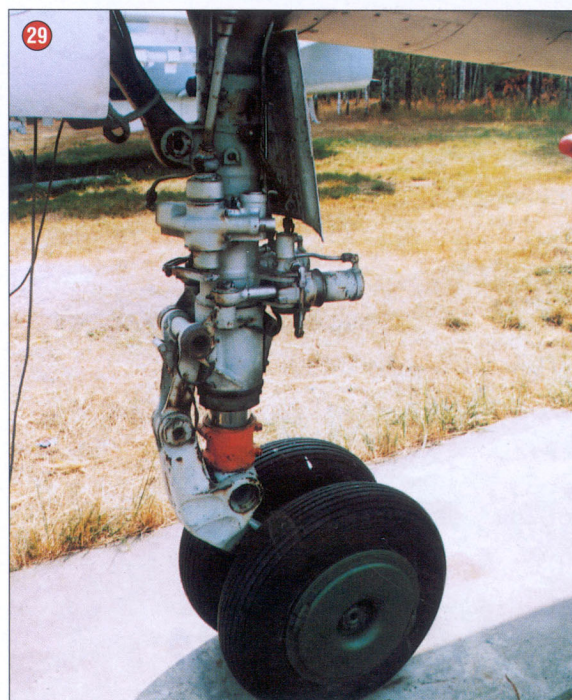
26. Another shot of the narrow-fuselage T-58D-2



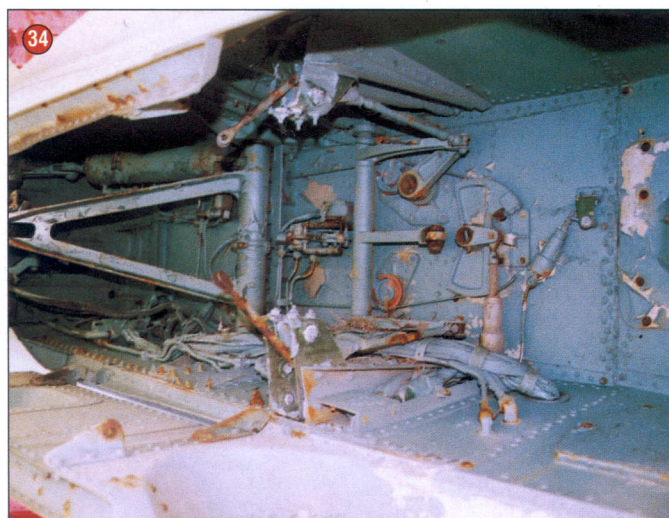
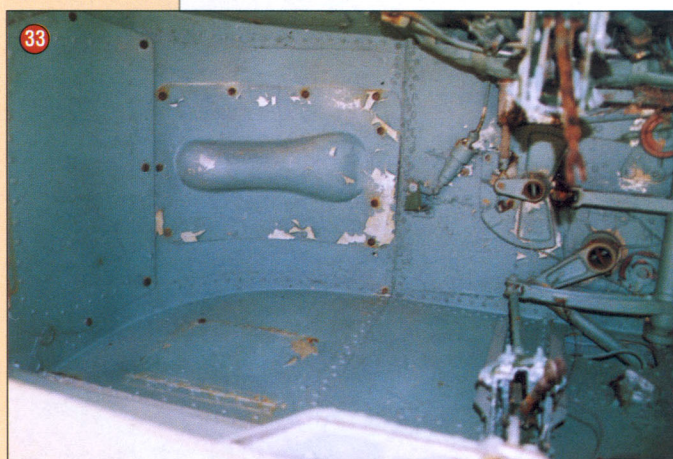
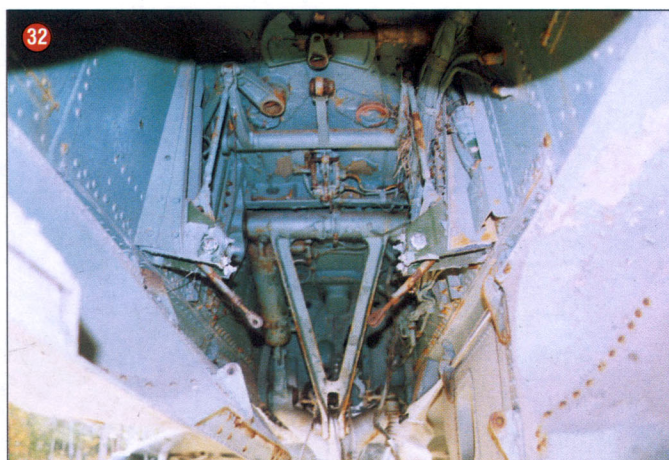
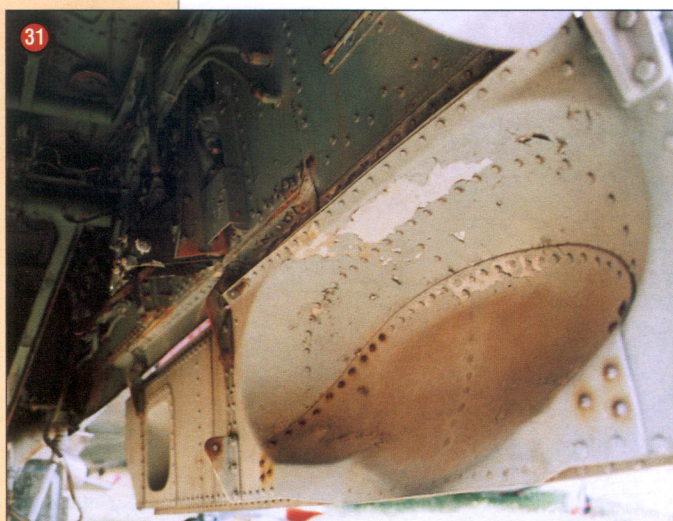
27. A view of the starboard intake

28. Close-up of the intake – totally different from the production Su-15

29. Twin nosewheels on the T-58D-2. Compare these with the 'collapsed' view in photo 12



30. Front view of the nosewheel



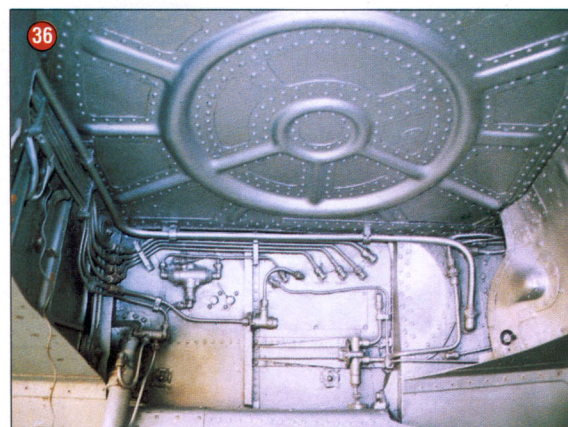
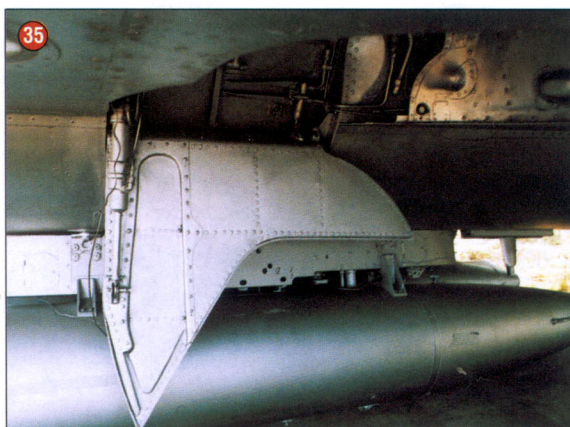
31. Inside view of the port nosewheel door looking aft

32. Looking aft up into the nosewheel bay

33. Forward end of the nosewheel bay

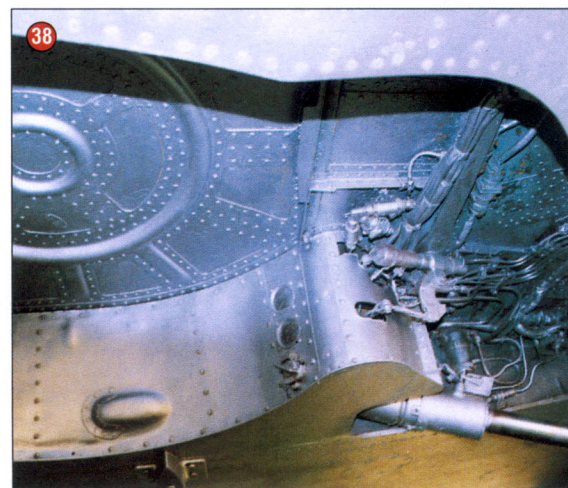
34. Roof of the nosewheel bay. The colours may not be representative of operational machines!

35. Inside face of the port mainwheel door; because of the narrower fuselage its shape is different to production machines

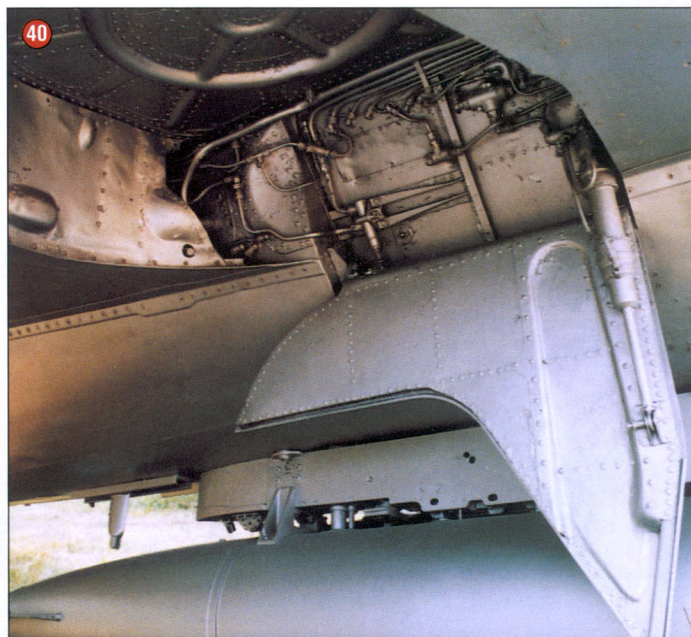


36. Inside end of the port mainwheel bay. This machine at Monino has just been sprayed silver overall so the colours are not representative

37. Looking outboard and aft into the port mainwheel bay



38. Looking aft into the port mainwheel bay



39. Inside face of the port mainwheel

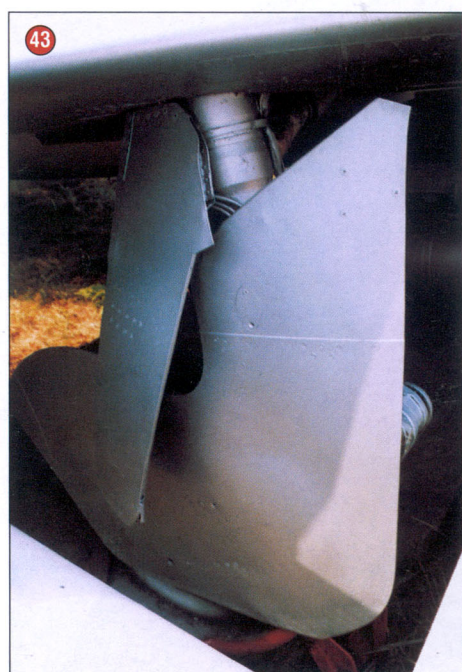
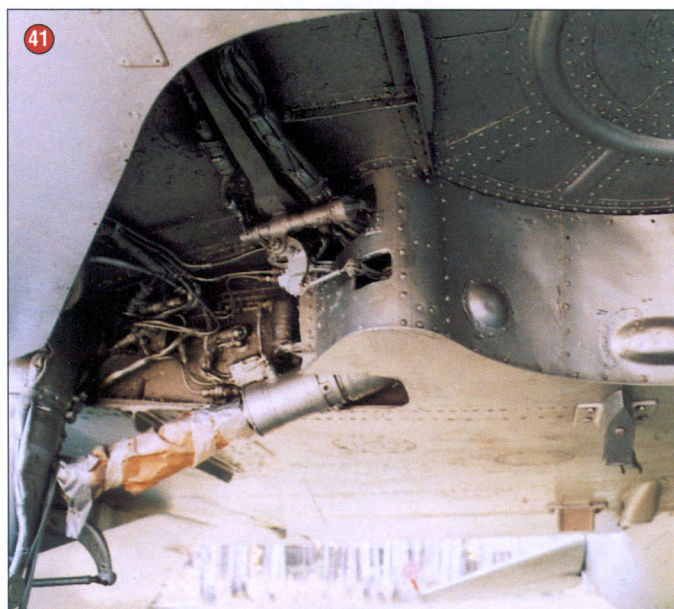
40. Inside face of the starboard mainwheel

41. Looking aft up into the starboard mainwheel bay

42. Starboard mainwheel, the oleo is collapsed

43. Outer starboard mainwheel doors, similar in shape to production machines

44. Rear end of the T-58D-2



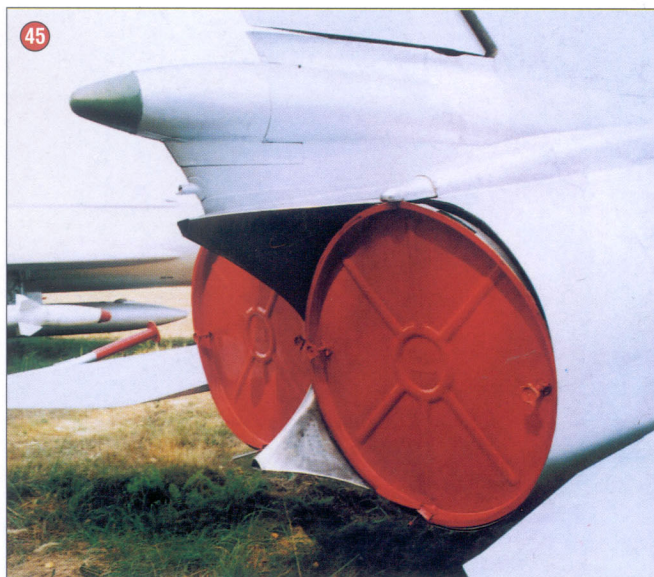
45. Exhaust and pen-nib fairing

46. Straight up the rear end

47. Engine cooling intakes on the starboard side

48. Note the slot for the tailplane actuator mechanism

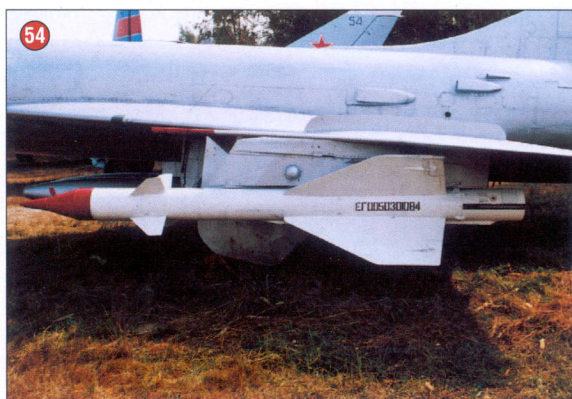
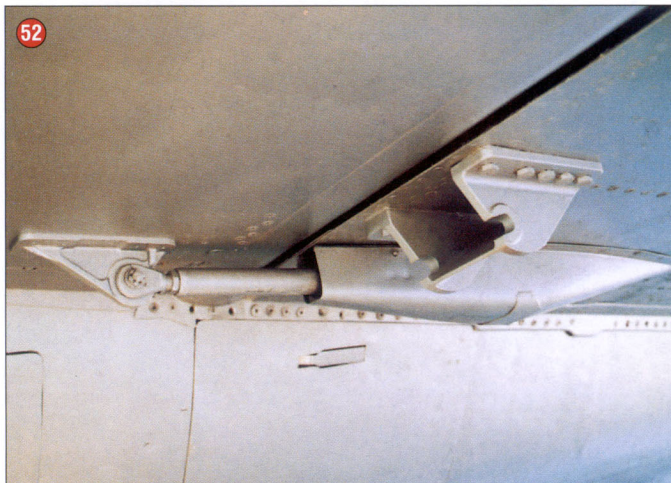
49. Long intake duct on top of starboard jetpipe. This duct is only fitted to machines with R-11F2S-200 engines. They are not present on later R-13-300 engined Su-15TM machines



50. Fin and rudder on the T-58D-2. Note that this machine has been repainted in a flat aluminium colour

51. Tailplane and anti-flutter weight. Su-15s with the heavier Taifun radar required twin nosewheels and have a slightly higher nose-up attitude resulting in the need to raise the anti-flutter weights. The T-58D-2 also has them fitted





52. Flap actuator on T-58D-2

53. Twin belly-mounted 600lt fuel tanks

54. Port R-98R missile. Note pylon shape and straight leading edge on wing

55. Close-up of the port missile pylon. The bulge probably houses a test-release camera and is not representative

56. Rear end of starboard R-98T missile

57. R-98T AA-3 'Anab' missile on starboard pylon

58. Starboard missile pylon. Note shape of pylon and wing fence

59. Su-15TM 'Yellow 11' at Victory Park Museum, Moscow. This machine is more representative of an operational Su-15



60. Another view of 'Yellow 11'

61. Front view of radome. Note how the intakes slope out from bottom to top

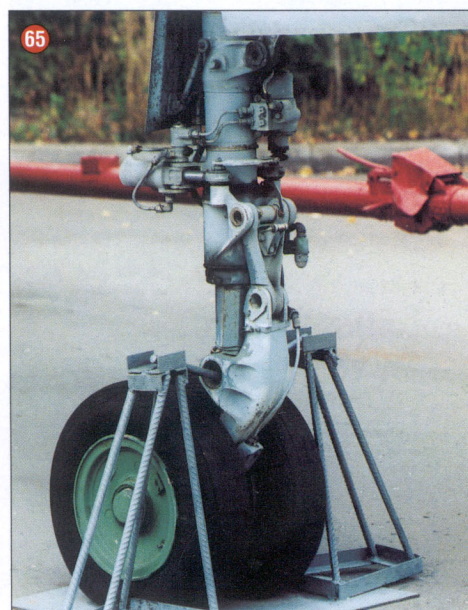
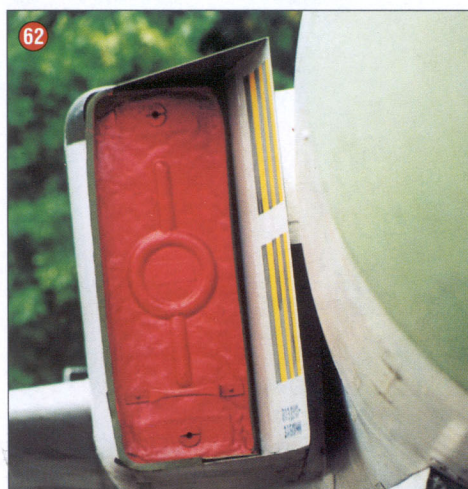
62. Close-up of starboard intake

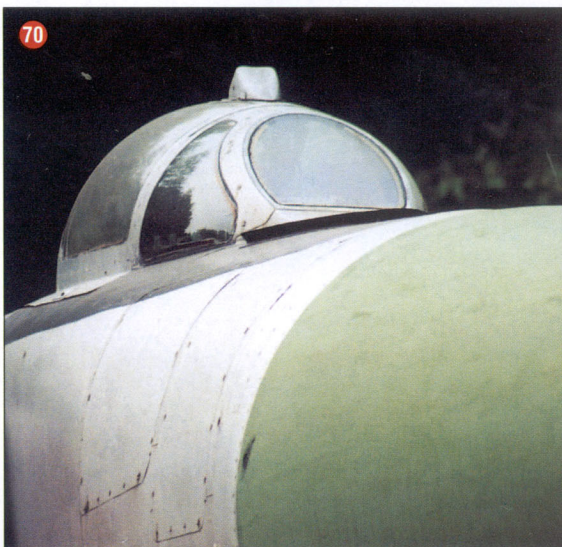
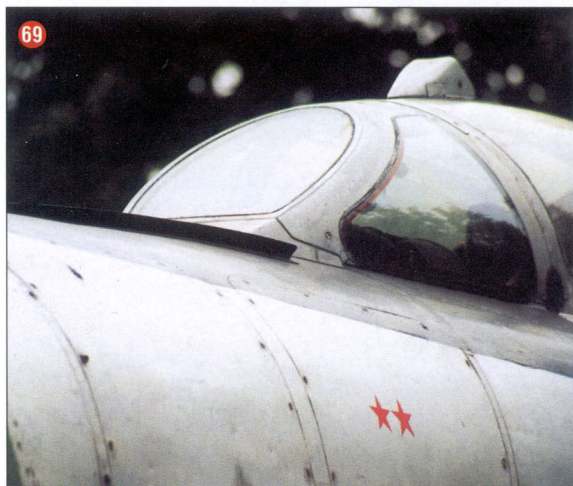
63. R-98R missile. Compare pylon and wing fence with photo 58

64. Close-up of R-98R. Note chisel shape of pylon

65. Nosewheel on 'Yellow 11'

66. Starboard nosewheel door





67. Inside face of port nosewheel door

68. Port nosewheel door and air data probes

69. Windscreen and rear-view mirror. Note black fence in front of windscreen and two red stars

70. View of canopy and fence – possibly a rain shield? I have not seen this on other single-seaters, but it appears in photos of two-seat Flagon

71. Starboard side of windscreen

72. Close-up of that vee-shaped anti-rain fence

73. Head box on the KS-4 ejection seat. Note the arming lever

74. Starboard intake on 'Yellow 11'. The word 'Opasno' in Cyrillic (meaning Danger) should appear in red in the gap between the top and bottom sets of stripes. The Cyrillic words 'Vozdukho-Zabornik' translate as 'Air Intake'

75. Side-on shot showing profile shape and downward slope of the Su-15TM's ogival radome

76. Twin UPK-23-250 gun pods on belly pylons

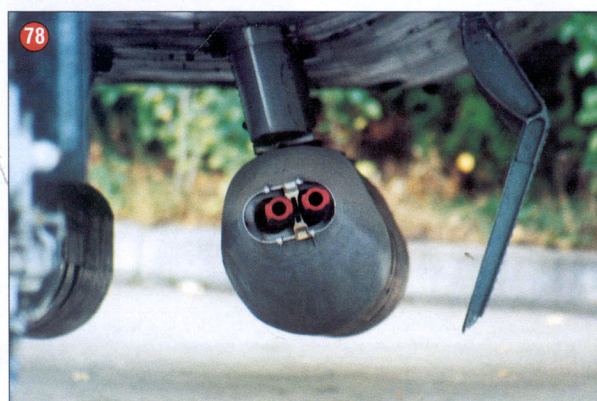
77. Close-up of gun pods. Note shape of inner mainwheel doors compared to those on the T-58D-2

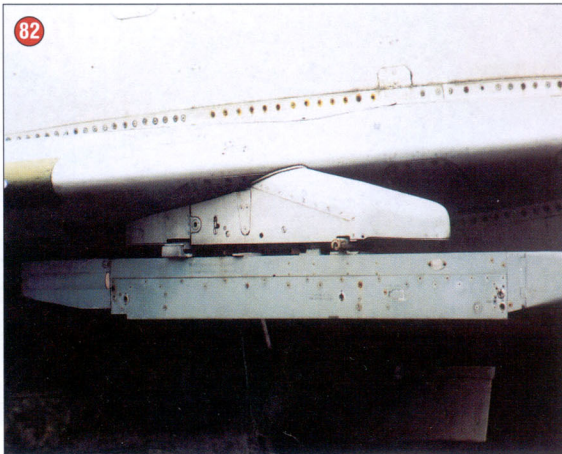
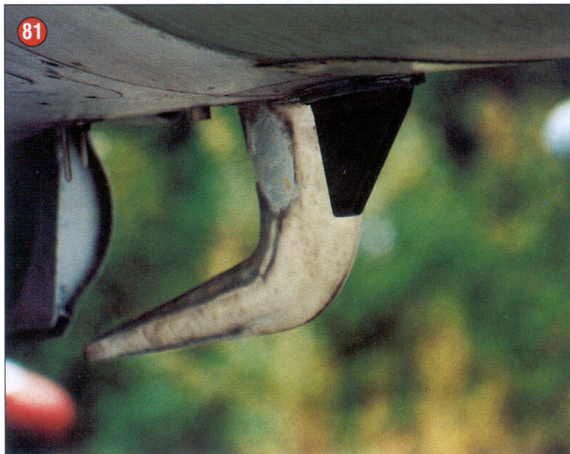


78. Targets-eye view up the barrels of the twin 23mm cannons. Note the mainwheel door to the right

79. Cranked leading edge of starboard wing. Note the upward canted anti-flutter weight on tailplane

80. Nose probe. The front vanes are pivoted to provide pitch and yaw input



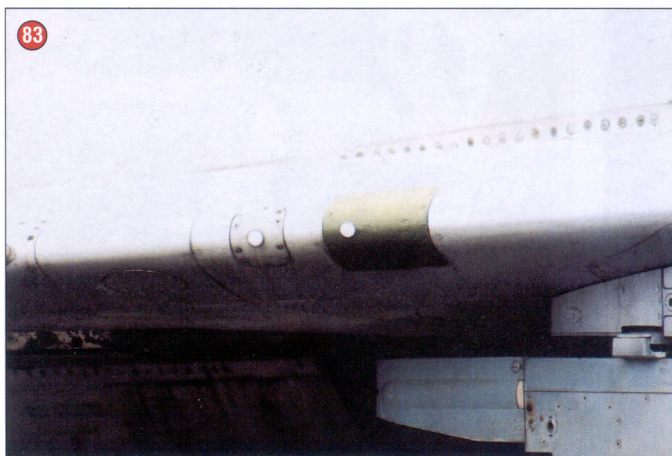


81. 'Hockey stick' antenna of the 'Lazur' command data-link

82. Starboard APU-62 launch rail for the R-60 AA-8 'Aphid' missile

83. Antenna on the wing leading edge

84. The remains of some Su-15s found on a dump at Tushino. This is a port wing showing the mainwheel and bay



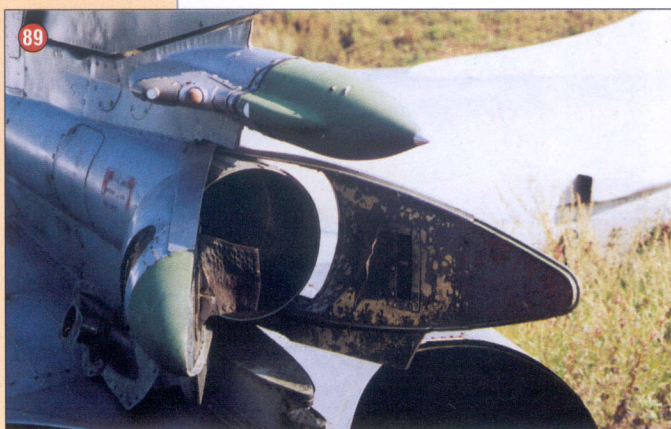
85. Single-seat canopy. Note the KS-4 seat and rain-guard in front of windscreen

86. Starboard view of two-seat Su-15UT canopy

87. Port view of Su-15UT canopy. Note opening latch and instructor's periscope

88. The only cockpit shot I could obtain!





89. Photo of the base of the fin showing the radar warning antenna and open brake parachute doors



90. Rear pen-nib fairing minus jetpipes. A sad end to a once-mighty fighter!

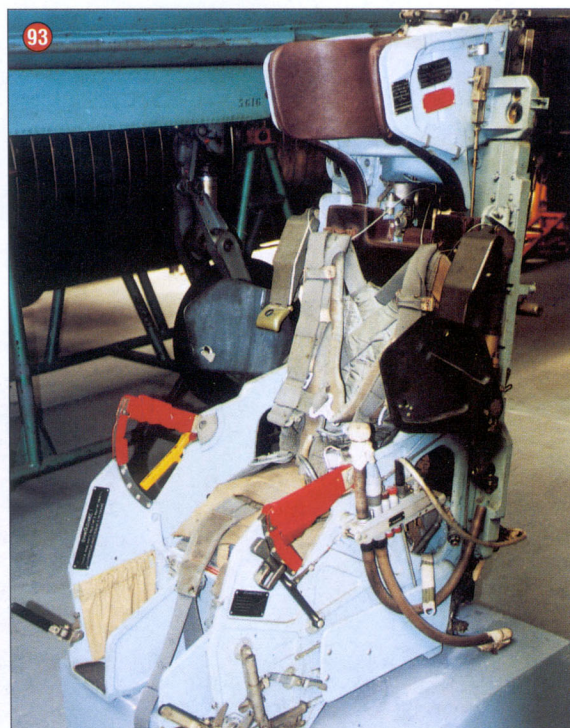
91. Mannequin sitting on a KS-4 ejection seat inside a glass case at Monino, but it does show what the well-dressed Su-15 driver looks like



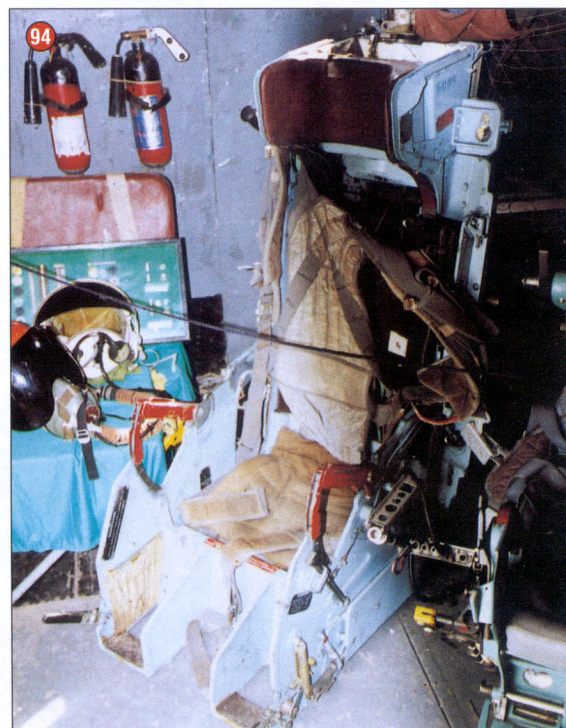
92. General view of a KS-4 seat taken at the Czech museum at Kbely



93. Left hand side of the same seat. Note the red firing handles in the 'fired' position!



94. Another view of a KS-4 in a different museum. Note the footrests and leg restraints





1. The plaque that stands in front of this historic machine

2. Overall view of this machine in all its glory

3. A slim machine when viewed from the front!

Photo Album

DOUGLAS D-558-I SKYSTREAK

Following on from Joel Hamm's article on the Skystreak in the July (Vol.1 Iss.7) edition of this magazine, what follows is a series of photographs taken recently of the Skystreak that is currently on display at the Carolina Aviation Museum in North Carolina, USA. This aircraft is actually owned by the USN & MC Museum, Quantico, VA. [MAM](#)

My thanks to Bill for his assistance in obtaining these photographs for us - Group Editor



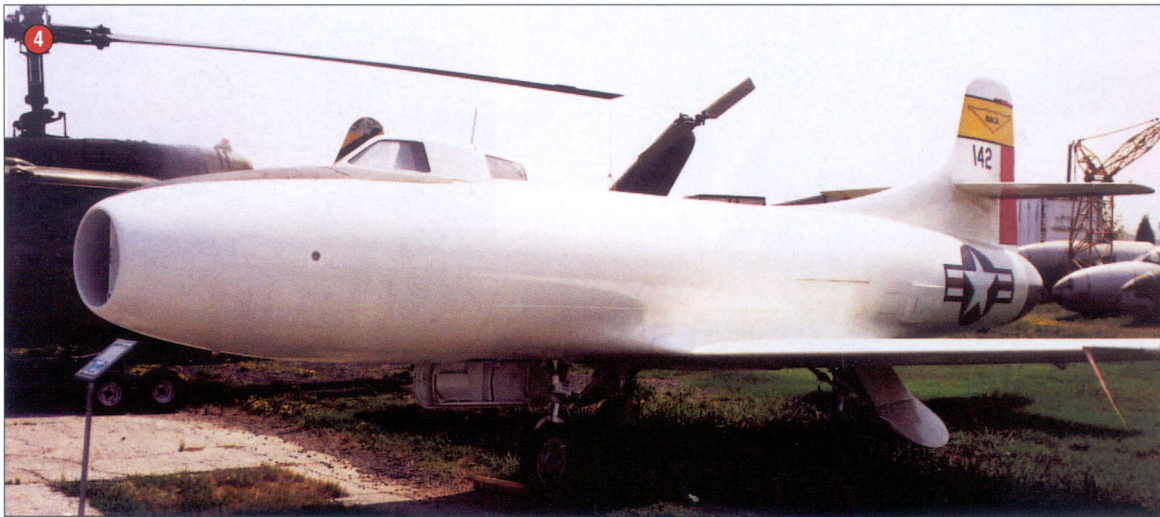
DOUGLAS D-558-I SKYSTREAK 1947

First conceived in 1945, the SKYSTREAK was designed to meet the requirements of the US Navy and the National Advisory Committee for Aeronautics (NACA), NASA's predecessor, for a high-speed research aircraft. It was required to accumulate air/loads measurements in free flight at speeds from Mach 0.75 to 0.85 and at heights between sea-level and 40,000 ft., data which at that time were unobtainable from wind tunnels. Three D-558-I's were built, the first of these flying in May 1947; on 25 August 1947 it established a new world speed record of 650.8 mph. The second aircraft was lost in an accident in May 1948 when the engine compressor disintegrated just after take-off. This aircraft is the third D-558-I and completed successfully on 10 June 1953 a series of 82 flights, having been sustained in this program by spares and components taken from the first prototype. An unusual feature was the pilot's escape system, the entire nose section of the aircraft, from the rear of the pilot's seat forward, being jettisoned in an emergency; it was intended that the pilot should bale out from the nose section when it had slowed sufficiently after separation. To gather flight data, an automatic pressure recording system with 400 measuring points was installed on the airframe; additionally, strain gauges were attached to selected positions on the wings and tail unit.

SPECIFICATIONS

Type:	Single seat jet-powered
Manufacturer:	Douglas Aircraft Corporation
Wing Span:	25 ft.
Length:	35 ft. 8.5 in.
Height:	12 ft. 1.75 in.
Weight:	9,750 lbs. normal take-off, max: 10,105 lbs.
Power Plant:	One Allison J-35-A-11 turbojet rated at 5,000 lbs. static thrust
Fuel Capacity:	230 gals. internal, plus 2 x 100 gal. wing tanks

US Navy - Quantico, VA



4. Port side view

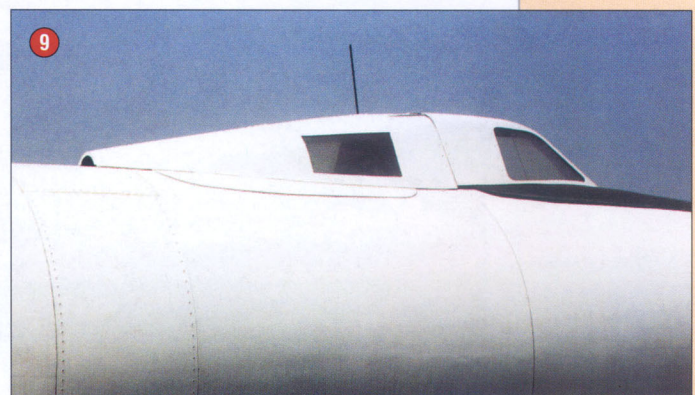
5. Direct port side view

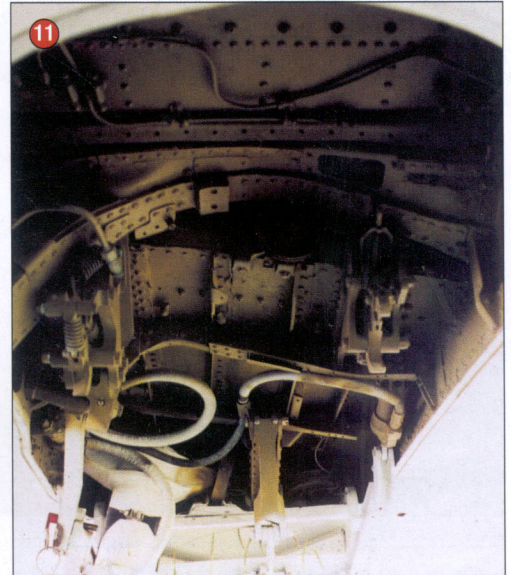
6. 3/4 port, rear view

7. Big engine!

8. 3/4 starboard, rear view

9. The canopy has limited glass, and is pretty small





10. Inside view of the port main wheel

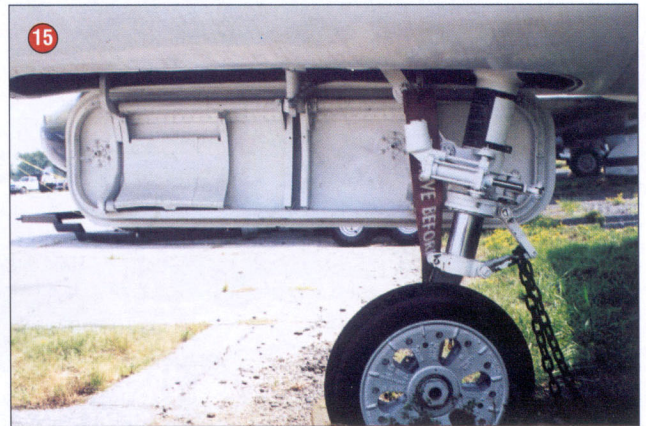
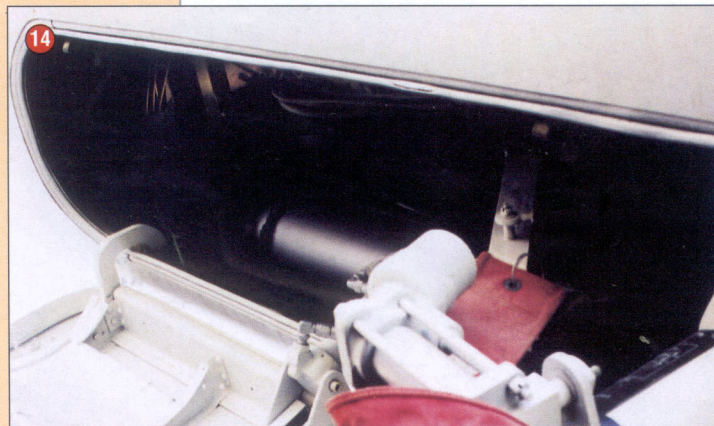
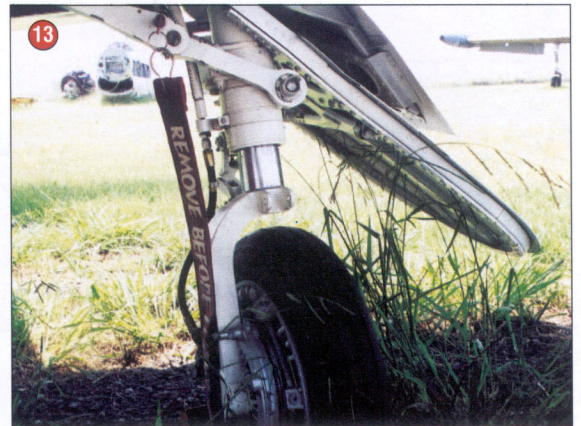
11. A look up into the port main wheel well

12. The port main wheel viewed from the front

13. The same unit close-up

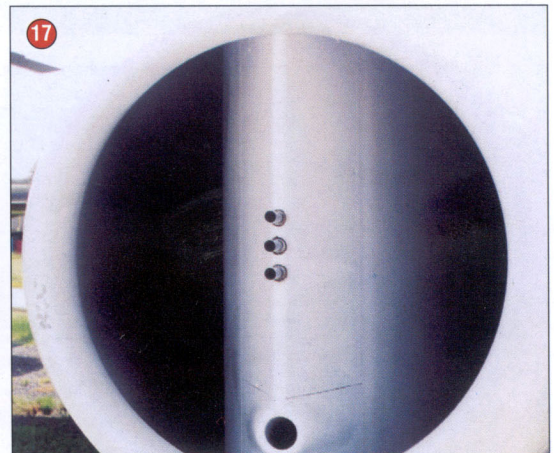
14. The nose wheel well is tiny, as this shot shows

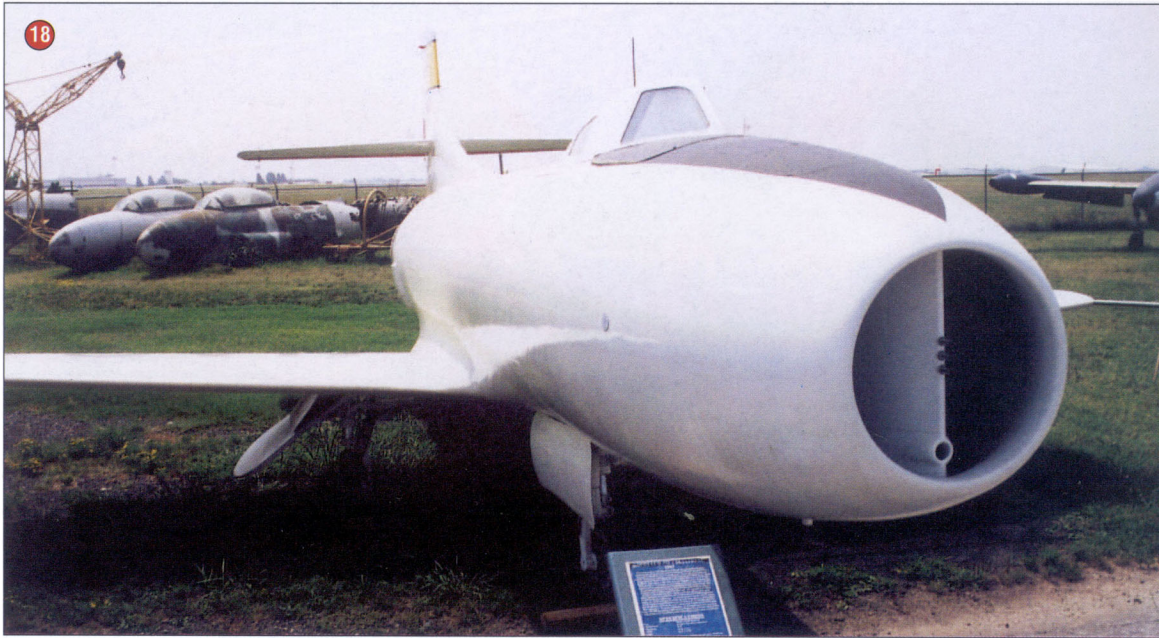
15. Overall view of the nose wheel from the port side



16. Close-up of the forward section of the canopy

17. The intake splitter with camera port (?) at the base and venturi in the mid-section





18. From this angle it looks kind of bulbous

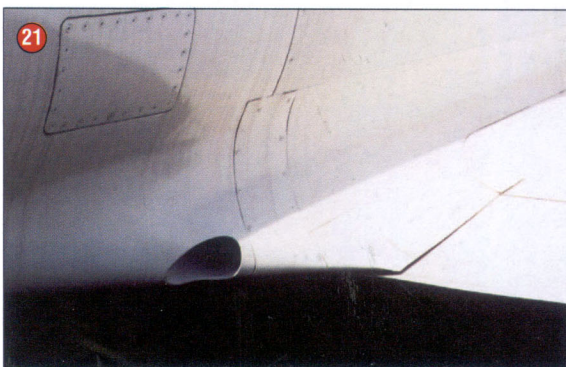
19. The expand-narrow-expand contours of the fuselage can be clearly seen here

20. NACA legend on the upper surface of the starboard wing

21. Little outlet on the fillet at the trailing edge of the wing. This is only present on the starboard side

22. What I presume are air brakes on either side of the rear fuselage

23. The vertical fin and tail



24. A look down the fuselage showing the location of those air brakes





1. One of a number of Bell 412s operated by CHC Helicopters, VH-BZH, assigned to temporary fire duties, wears the company's attractive red, white and blue colour scheme. The high gloss finish is clearly evident under the Australian sunshine. In this view the all-weather radar can be seen centrally mounted on the nose. Note the aerials protruding from either side of the lower nose

Fire Bell

by Glenn Sands

FIGHTING FIRES THE AUSTRALIAN WAY

The threat of bushfires during the summer months throughout the state of Victoria in Australia tests the resources of all the State Emergency Services (SES), and as a result, this has seen the introduction of temporary contracts being issued over the last few years to a variety of helicopter operators who are able to provide a quick and immediate response to flashpoint fires throughout the state. The Victorian Department of Natural Resources & Environment (NRE) during the summer of 2000/2001 contracted a total of 23 helicopters and fixed-wing aircraft as a precaution against any bushfires. Among the helicopter companies contracted was CHC Helicopters (Australia), which is a Canadian based company who support and supply helicopters for air operations around the world. CHC supplied three medium helicopters for fire-fighting duties, one of which was a Bell 412 VH-BZH, which flew under

the call-sign Helitack 1 from Moorabbin Airfield, Melbourne, and is the subject of this feature.

For those looking to do something different with their Italeri kit other than US military colours or Canadian SAR, the enclosed images may provide some inspiration for an alternative civil colour scheme. **MAM**

2. A general port-side view illustrating the position of the division lines of the red, white and blue colour scheme. Note that CHC helicopters carry very few markings and stencils





3. Starboard side view of a fire-fighting Bell 412. These helicopters are a common sight throughout the summer months in the state of Victoria and work in partnership with Bell Jet Rangers which serve as spotters and area control helicopters

4. The interior of the very clean cockpit is close to Light Aircraft Grey but with a satin finish. The instrument panel is the same colour grey with black dials and odd red and yellow switches, the cyclic is overall black. The yellow cylindrical object is a fire extinguisher

5. A close-up view of the port-side illustrating the position of the CHC winged bird logo on the cockpit door, (positioned both sides), and the CHC initials in black (both sides). Also of note is the position of 01 in reference to the Bell 412's call-sign, 'Helitack 1'

6. Mounted centrally on the nose is the all-weather radar, with the numerals 01 positioned above. Note the cable-cutters above the cockpit and positioned underneath the radar housing. The front section of the 1400 litre, detachable, belly tank can be seen in this view with the Fire Attack logo in *italics*

7. The outer attachment points of the belly tank can be seen in this view, as can the additional outer rear cabin step mounted to the skids; the attachment points are the same for both sides. Additional details are the under-fuselage light, and the myriad of small aerals. The position of the black anti-slip coating tape, both on the skids and cabin step is noteworthy. A closer view of the CHC's logo shows the Hummingbird outline



8. An overall close-up view of the cockpit entry door, illustrating additional details to be added. To aid the step-up to the cockpit is an additional grab handle mounted on the cockpit framing. The glazing above the cockpit is tinted blue. The overall cockpit clutter gives an impression of a very busy working environment for this fire-fighting crew

9. The business end of any fire-fighting helicopter, the water collection unit from the belly tank, containing a filter to guard against any debris in the water. The unit is overall gloss orange with black details



10. The port view of the belly tank illustrating the similar attachment point and the identical extended rear cabin step

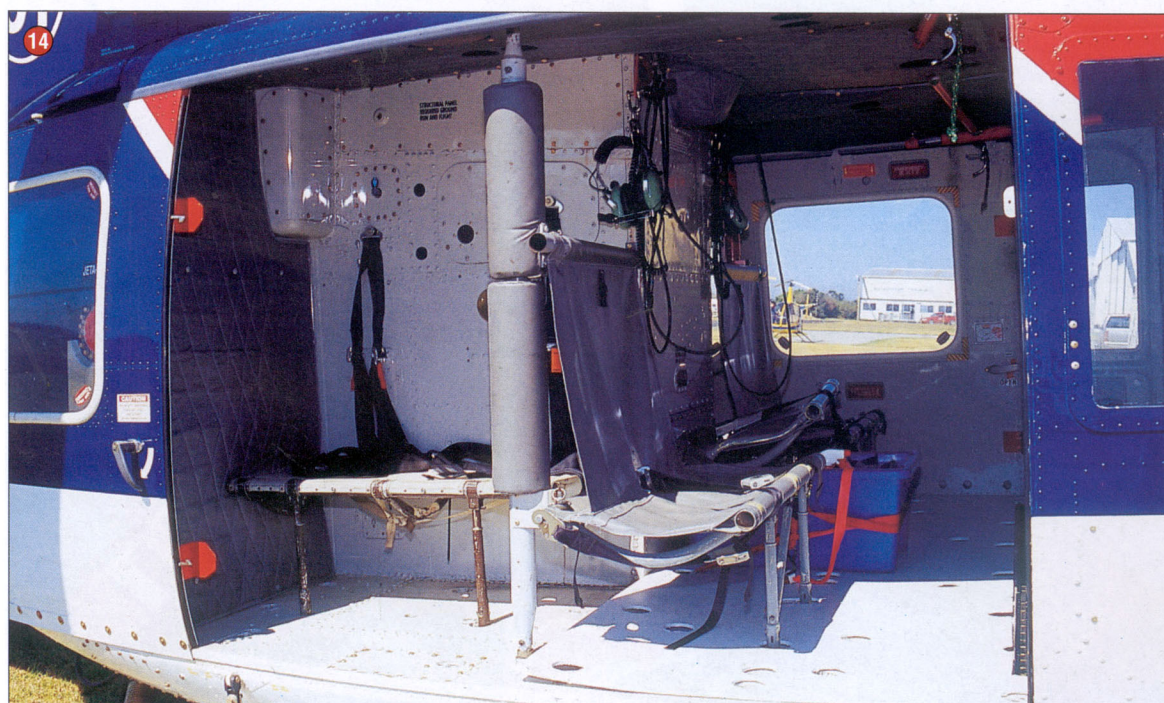




11. A front view of the tank showing the lack of visible attachment points and the streamlined rounded design

12. The complex rear section of the belly tank, which consists of a smaller self-contained unit. In this view can be seen three attachments to hold the flexible hose when stowed, or in flight to the fire area. The hose connects with the tank's starboard side. Note the additional smaller leads and details attached to main hose

13. A general rear shot of the fuselage illustrating the overall busy look of the helicopter and cabin



14. The canvas cabin seats are medium grey in colour with black straps. Minor details of the rear cabin are the headsets and various assorted boxes

15. What used to be the door-gunner's position during Vietnam, is now the home of an aerial observer (spotter) when carried. The cleanliness of the cabin is noteworthy; note the additional foam coverings around the seating poles

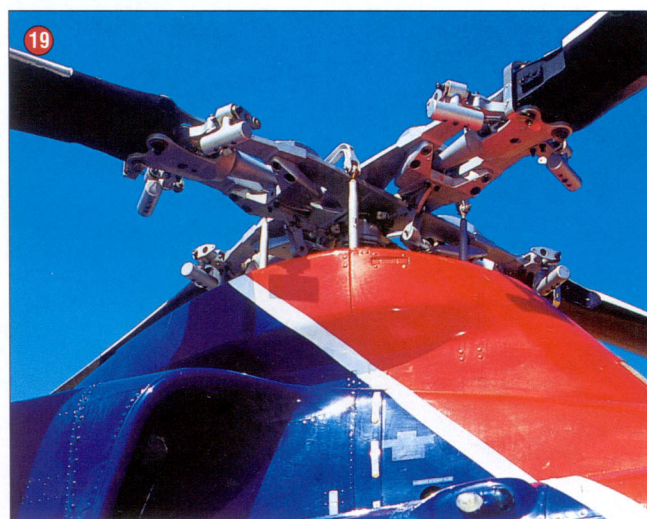
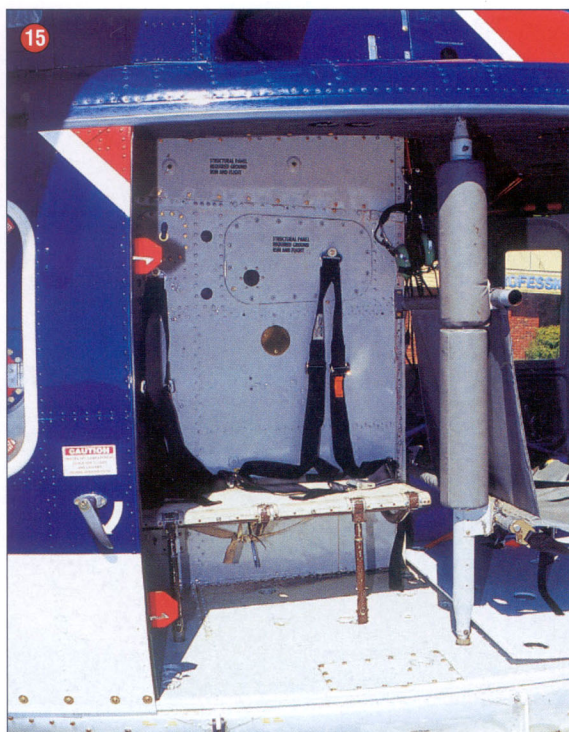
16. Prominent in this view of the rear of the pilot's seat is the yellow stretcher. Pilots wear a blue survival vest but with less equipment carried. At the time these were draped over the seats as 'Helitack 1' was on stand-by fire-alert

17. The twin exhausts of the engines can be seen in this view, and note how highly polished they are, a sight not often seen on military service examples. The green tinge of the engine filter needs to be included on any civilian model. Military examples are black

18. Close-up details of the pilot's door illustrating the black map pocket and door glazing

19. The rotor-head is dull natural metal and surprisingly sparse of mechanical clutter. The rotors themselves have black undersides, and gloss white upper surfaces with a matt red section midway along their length; this can be seen in the starboard side view (See 3)

20. The tail rotor illustrating the blade black and white warning colours. The red cloth is simply a Remove-Before-Flight tag positioned to stop the rotor moving in the wind





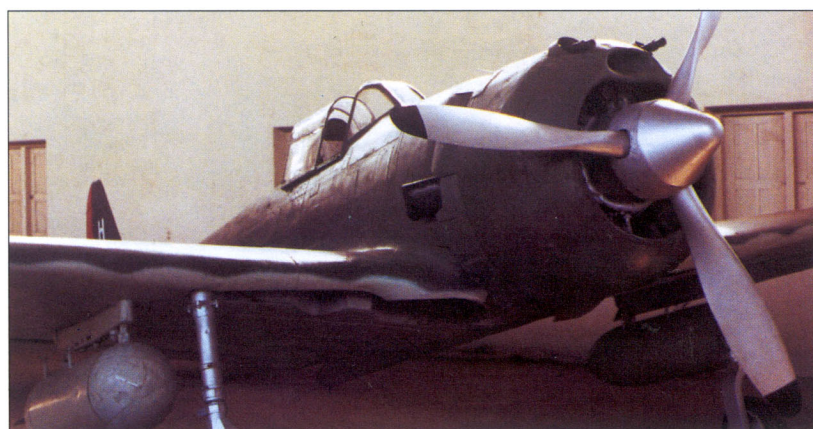
Oscar and Sonia

by Jim Grant

The Indonesian Air Force was formed in 1945 and, as the result of its origins and national political convictions, has operated a wide variety of Japanese, British, American, Eastern Bloc and nationally produced aircraft. A sense of pride in its achievements has ensured that a significant number of these aircraft have been put aside for preservation.

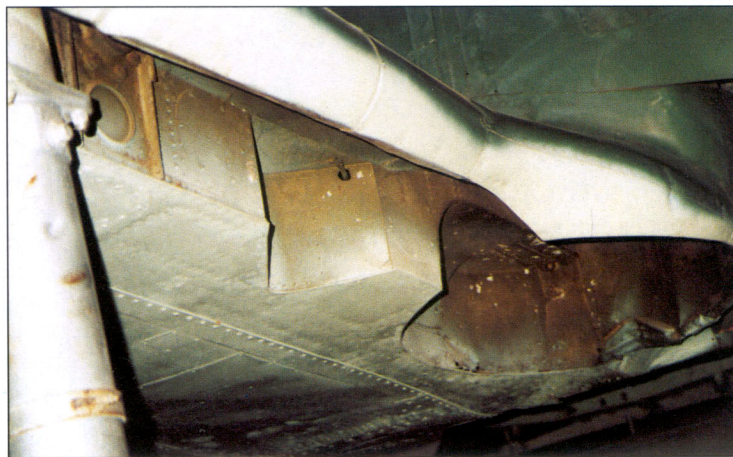
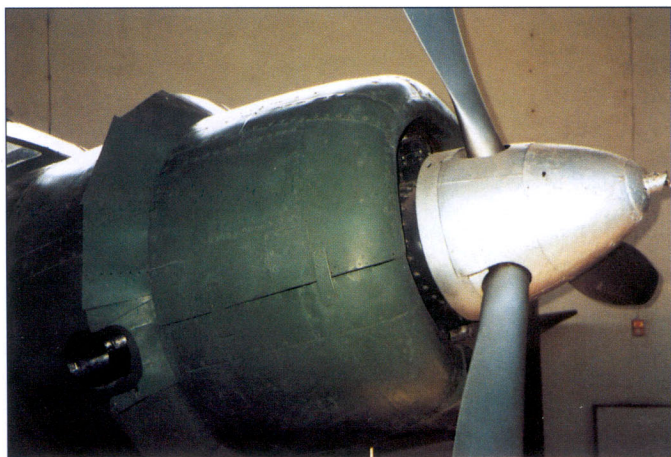
The national aeronautical collection of the Tentara Nasional Indonesia - Angkatan Udara (TNI-AU) the current name of the air force - is held at Adisutjipto Air Base just outside Yogyakarta in Central Java. This airfield, formerly named Maguwo, was the first to fall to units of the fledgling Tentara Keamanan Rakyat (People's Peacekeeping Army) when they overran it late in 1945. It was from the Japanese aircraft captured here that the air force obtained its first aircraft so it is appropriate that the main collection of military aircraft in Indonesia should be located here.

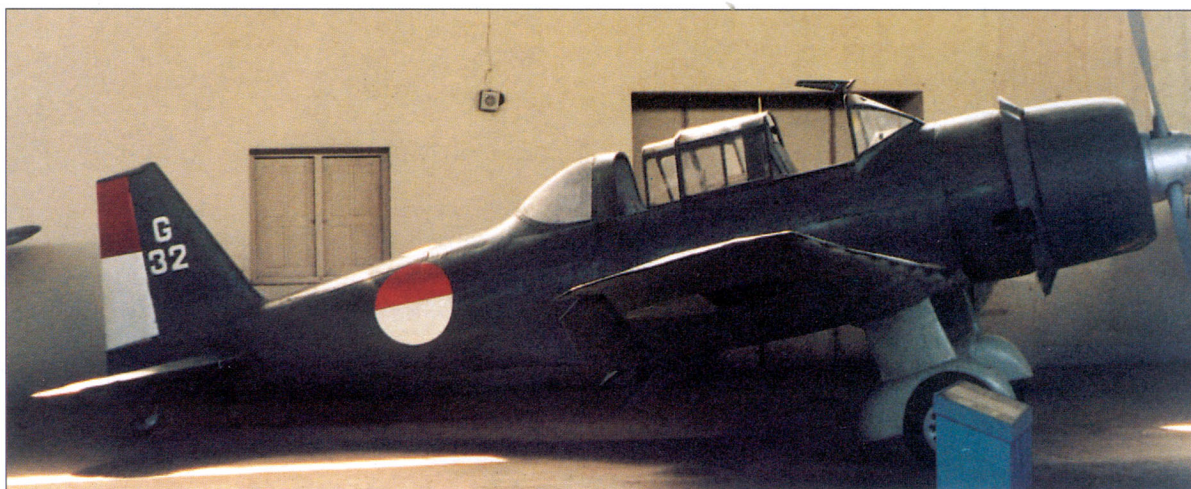
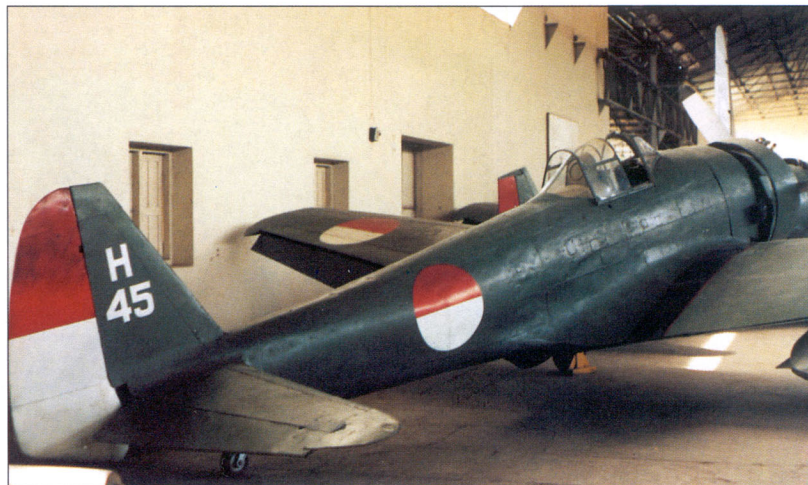
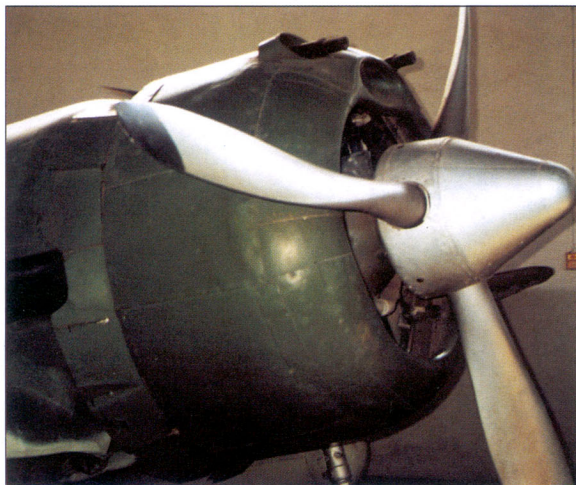
The TNI-AU has seen a fair amount of action during its existence. Between 1945 and 1949 this was initially against the Dutch on Java and Sumatra but later on it fought against separatist forces in Indonesia itself. From August 1945 to December 1949 it relied upon rebuilt Japanese aircraft with a few additional aircraft, including Douglas C-47s, an Avro Anson and a de Havilland D.H. 86 purchased overseas. Japanese aircraft



known to have been acquired during this period included six Kawasaki Ki-61 Tonys, six Nakajima Ki-43 Oscars and two Nakajima Ki-49 Helens captured at Malang, eight Mitsubishi Ki-51 Sonias and four Tachikawa Ki-55s captured at Kluntan and one Mitsubishi Ki-21 Sally and a number of other, mostly training, types from various airfields.

Two of the museum's gems are H45, a Nakajima Ki-43-II Oscar and G32, a Mitsubishi Ki-51 Sonia known locally as a





Guntai. The Oscar was discovered in West Irian Province and represents the half dozen or so Oscars flown during the War of Independence, but the Sonia is one of the aircraft used to attack the Netherlands Forces in Central Java. The Indonesian use of former Japanese aircraft was limited by the shortage of spares which had to be obtained from wrecks within areas controlled by the new republic, however, their presence kept Dutch ground forces in a constant state of uncertainty.

The Nakajima Oscar is one of a small number of survivors of the 5,919 such aircraft built, however the Sonia is the last survivor of the 2,385 produced.

Unlike many of the surviving Japanese WWII aircraft of this period which have been restored to an approximation of their original markings these two aircraft have been painted in Indonesian markings of the late 1940s.

The colour schemes of the two aircraft are almost identical.



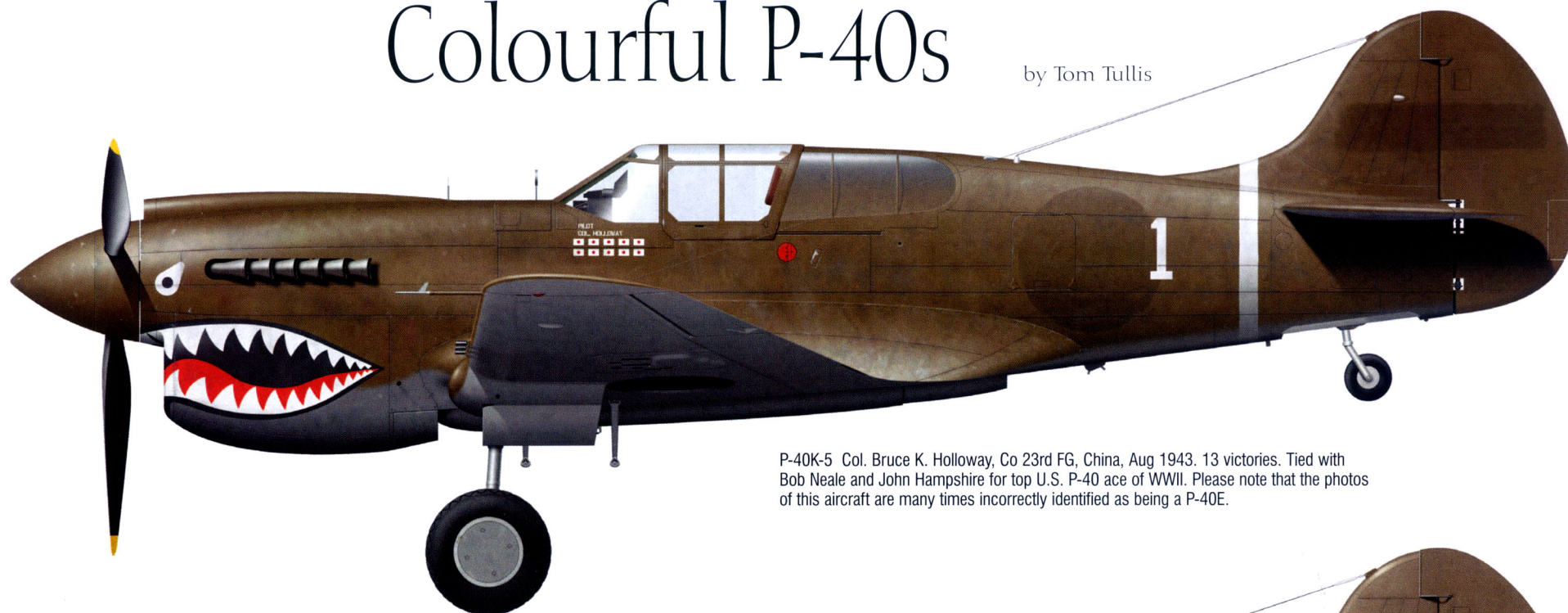
The fuselage, cowling and tail assembly, are dark green with the exception of the undersides of the tailplane which are light grey. The undersides of the wings are light grey from wing tip to wing tip including the underside of the fuselage. On the leading edge of the wing the two colours meet in a wavy line. The undercarriage of the Sonia is light grey. All exhaust stubs are painted black and there are 12 inch wide black wing walk markings, with a one inch red stripe on the outer edge, on both sides of the cockpit. The rudder is split red over white with 8 inch high white letters/numerals on the fin. Fuselage roundels are 26 inches in diameter and are of equal portions of red over white. Wing roundels are the same pattern but are 36 inches in diameter. Both sides of the propeller blades are painted aluminium with black tips. The cockpit interior is light green.

The Museum Pusat TNI-AU Dirgantara Mandala is located on the outskirts of the city of Yogyakarta. As it is on an Air Force base it is necessary to surrender your passport at the control point some three hundred yards from the museum entrance. [MAM](#)

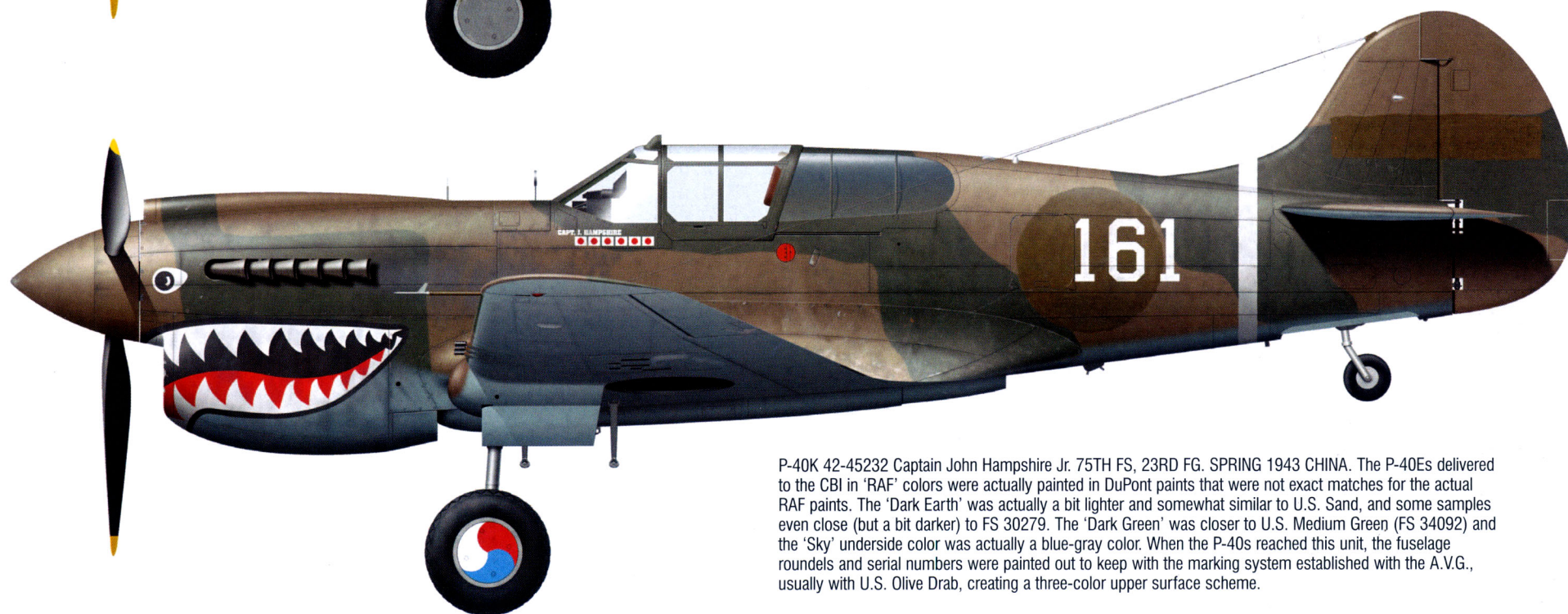


Colourful P-40s

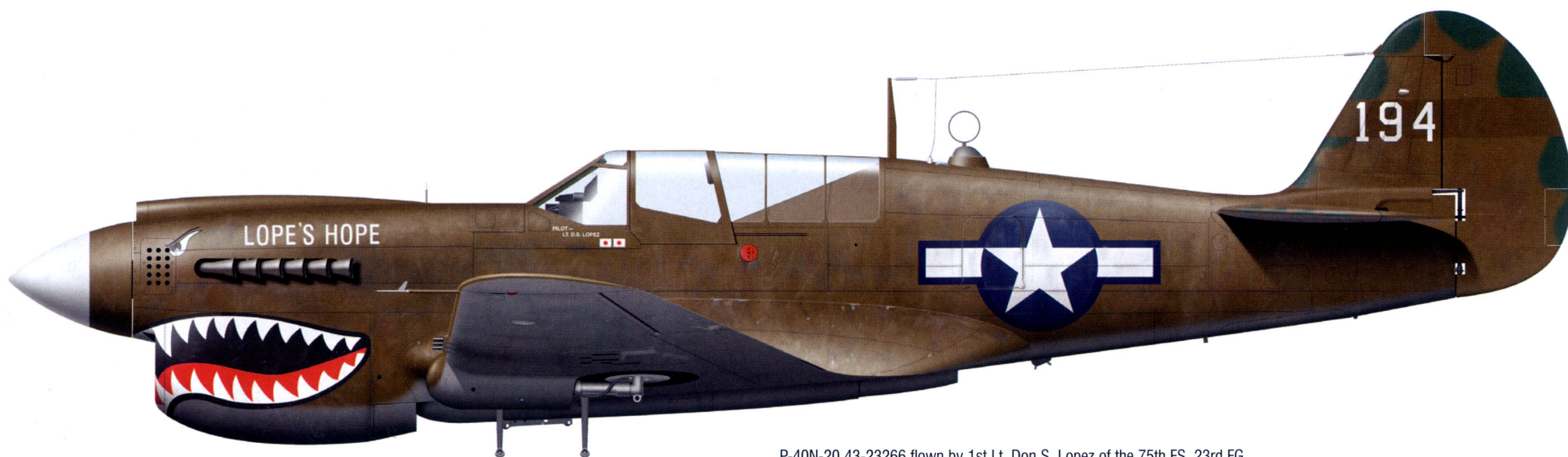
by Tom Tullis



P-40K-5 Col. Bruce K. Holloway, Co 23rd FG, China, Aug 1943. 13 victories. Tied with Bob Neale and John Hampshire for top U.S. P-40 ace of WWII. Please note that the photos of this aircraft are many times incorrectly identified as being a P-40E.



P-40K 42-45232 Captain John Hampshire Jr. 75TH FS, 23RD FG. SPRING 1943 CHINA. The P-40Es delivered to the CBI in 'RAF' colors were actually painted in DuPont paints that were not exact matches for the actual RAF paints. The 'Dark Earth' was actually a bit lighter and somewhat similar to U.S. Sand, and some samples even close (but a bit darker) to FS 30279. The 'Dark Green' was closer to U.S. Medium Green (FS 34092) and the 'Sky' underside color was actually a blue-gray color. When the P-40s reached this unit, the fuselage roundels and serial numbers were painted out to keep with the marking system established with the A.V.G., usually with U.S. Olive Drab, creating a three-color upper surface scheme.



P-40N-20 43-23266 flown by 1st Lt. Don S. Lopez of the 75th FS, 23rd FG, Summer 1944 China.



P-40E (Serial unknown) Col. Robert Scott, CO. 23RD FG. September 1942. Scott often referred to this aircraft as "Old Exterminator", but the name was never actually painted on the aircraft. The serial number mentioned in Scott's autobiography does not match any known P-40 production number. In any event, the standard practice at this time was to paint the serial number out with O.D., so it is not an issue for accuracy of the profile.



P-40N-5-CU, Army Pilot Class 43-K, Napier Field, Alabama, November, 1943. Arguably the most colorful markings ever applied to the cowl of a P-40, the parrot heads adorned the P-40Ns used by Army pilot Class 43-K in November 1943 at Napier Field, Alabama. As with the CBI shark mouths, each Parrot was different upon close inspection. It should also be noted that the serial number is not the standard 8" high lettering, but rather a 10" style.

References:

Original photos from the collection of Carl Molesworth
P-40 Warhawk Aces of the CBI by Carl Molesworth. Osprey Publications, 2000.
P-40 Warhawk in WWII Color by Jeff Ethell. Motorbooks, 1994.
Original photo from the collection of Robert Mikesh.
Original photos from the collection of Nick Waters III.
Original Curtiss markings diagrams via Dana Bell.



P-40E-1 Unfortunately, little is known about this interesting aircraft. The photo was censored for background details, so no location could even be guessed at or to determine a time frame for the test flights. The underwing had a solid red disk, and it is assumed that the upper wing had roundels with a white outline like on the fuselage sides. While the underside of the wings were quite dark, no indication of the 'U.S. ARMY' could be seen, indicating that it had been painted out.



RAF Chinook Colours

by Tom Ross

1. HC.1, ZA714/EX, No.7 Squadron at RAF Wyton, 12/5/89. Standard camouflage with full colour squadron insignia. Note the early chaff/flare fit on the aft pylon and fuselage, with external cable loom. This initial self-defence suite was introduced in 1985 when four Chinooks were deployed in support of British nationals in Lebanon

It was only at the third time of ordering that the RAF finally received, what is now the workhorse of its Support Helicopter Force, the Boeing Chinook. An order for fifteen CH-47B Chinooks was placed firstly in 1967 and again in 1971, only to be cancelled by defence cuts both times.

In 1978 an order was placed for thirty-three Chinook HC.1s, based on the CH-47C airframe but with many of the features from the forthcoming CH-47D.

The first RAF Chinook flew on the 23rd March 1980 and the first example arrived in the UK on October 31st 1980 to begin trials at Boscombe Down. 240 Operational Conversion Unit

began pilot conversion in December of 1980 and 18 Squadron became the first operational RAF Chinook squadron in August of the following year. 240 OCU also continued in the training of Puma aircrew.

The HC.1 was camouflaged in the standard helicopter colours of the day, Dark Green and Dark Sea Grey upper surfaces and matt black underneath. This basic scheme remained until the twenty-six surviving airframes and eight attrition replacements went through the multi-million pound RAF Chinook Mid-Life Upgrade programme, which began in late 1991.





2, 3 & 4. HC.1, ZA720/EP, No.7 Squadron, RAF Odiham, June 1991. ZA720 was one of several Chinooks to receive this mottled camouflage over the desert sand finish during the Gulf War. Even the external hoist has been mottled. The EP codes were applied on its return to Odiham.



5 & 6. HC.1, ZA707/EV, No.7 Squadron, RAF Odiham, 1991. The Gulf War introduced a much more comprehensive self-defence suite to the Chinook fleet. As with ZA720, the surround to the forward port bubble window has not received the mottle camouflage as these were removed to make way for an M134 minigun



7 & 8. HC.1,
ZA712/ER, No.7
Squadron, RAF
Odiham, 1991. ZA712
displays a unique
variation on the
mottling theme. The
camouflage may be
the reason it was
sometimes referred to
as the 'Black Bomber'



9 & 10. HC.1,
ZD982/FI, No.240
OCU, RAF Odiham,
21/6/91. ZD982 was
one of the eight
Chinooks deployed
to the Gulf aboard the
Atlantic Conveyor and
featured an overall
sand finish. The code
letter was initially
painted white on
deployment, on both
the forward and aft
pylons, but was over-
painted in yellow or
primer on the aft pylon
at some point





11 & 12. HC.1, ZA684/EL, No.7 Squadron, RAF Odiham, 21/6/91. This 'cab' wears an almost pristine sand finish and still has the single row of fuselage aerial supports at a time when many in the fleet had been upgraded with the double row



13. HC.1, ZA671/EQ, No.7 Squadron, RAF Abingdon, 1991. Despite initially being given an overall sand finish, ZA671 has had what looks to be a partial re-application of black undersides rather than the removal of the sand topcoat. Again the letter 'O' on the aft pylon has been changed from white to yellow. Note also that the middle of the five transmission shaft covers on the fuselage roof has been painted orange, a feature also on ZA674/Z



14. HC.2, ZA709/EQ, No.7 Squadron, RAF Odiham, 19/8/95. Pictured shortly after its mid-life upgrade, ZA709 wears overall Dark Green FS 22750 as delivered by Boeing

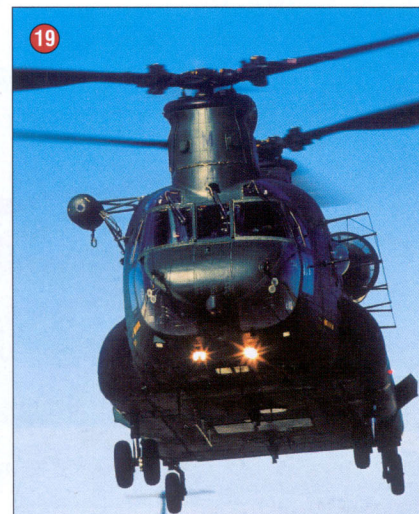
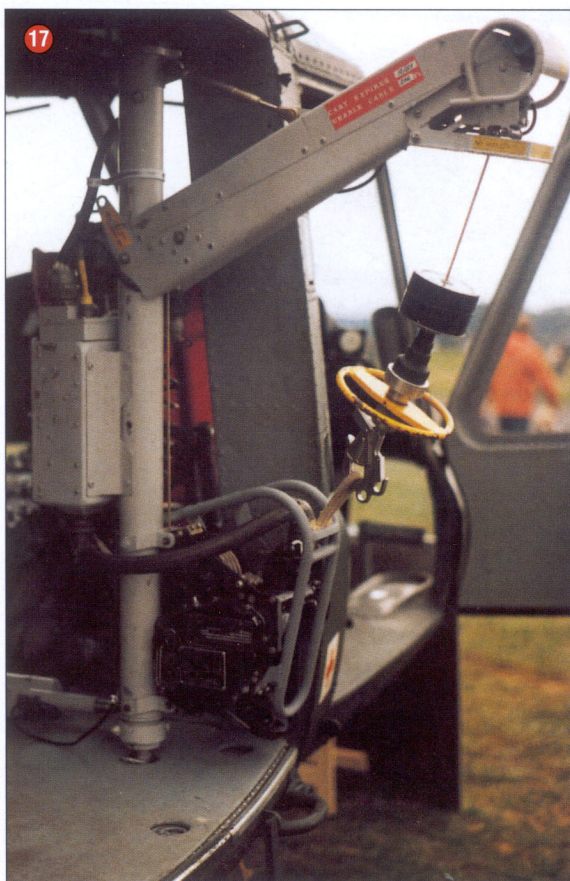




15. HC.2, ZD980, No.7 Squadron, RAF Odiham, 19/8/95. One of three aircraft painted white with UN markings for use in the former Yugoslavia in support of UNHCR missions

16, 17 & 18. HC.2, ZA708/BC, No.1310 Flight, Divulje Barracks, Croatia, October 1999. Looking well used, it sports black SFOR markings on both sides of the aft pylon. Forward of the front door it carries the title '1374 FLT' and a caricature of a Chinook with a minigun. Is this a reference to a possible long-term detachment to Kosovo before Puma HC.1s took on the support role here in 1998?

19. HC.2, ZA713/EM, No.78 Squadron, Mount Pleasant Airfield, Falkland Islands, 13/2/00



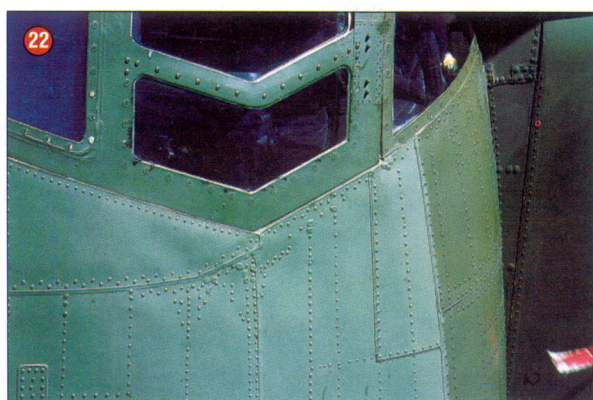


20. HC.2, ZA683, No.78 Squadron, Mount Pleasant Airfield, Falkland Islands, 9/2/00. Unusually and possibly uniquely, ZA683 has a black anti-glare panel forward of the cockpit, something previously seen only on the HC.1 and white HC.2s. No.78 Squadron markings do not seem to be applied too often



21. HC.2, ZD980/EA, No.1310 Flight, Divulje Barracks, Croatia, 25/9/00. This time with white SFOR markings

22 & 23. HC.2, ZA714/NT, No.1310 Flight, Divulje Barracks, Croatia, 9/11/00. ZA714 displays signs of considerable repainting of the port fuselage side. The original Boeing specified FS22750, is now substituted by IRR Satin Dark Green BS381C/241 (the latest incarnation of BS381C/641)



24 & 25. Nose-art 1. HC.2, ZA718/BN, No.18 Squadron, RAF Odiham, 2002. 'The Survivor' is displayed on both sides of the forward fuselage (©Tim Horne)



If modelling a Chinook HC.1 during its early service, be aware that several variations on the placement of the fuselage bubble windows exist. Initially these were fitted in the second from last positions on both sides of the fuselage. By the time of the Falklands War several aircraft were sporting a third bubble window at the forward port position. This is how it remained until about 1988 when the two aft windows were moved back one place to the extreme aft position on both sides of the fuselage. It was also about this time that a second row of aerial supports were added to the port fuselage.

Until deployed to the Gulf region as part of Operation Granby in 1990, the only variations of note were the large Union Jacks placed on the aft pylons and underneath the forward fuselage of four Chinooks, including ZA705/EZ, ZA675/BB and ZA711/ET, deployed to RAF Akrotiri in Cyprus in 1985. These aircraft were used to aid in the evacuation of British nationals and UN peacekeepers in Beirut, Lebanon. A special colour scheme was applied to the aft pylon of ZA671 in 1989 to celebrate the 75th anniversary of 7 Squadron, with 18 Squadron painting ZD980 for similar reasons in 1990.

The biggest change to camouflage was during the Gulf War when liberal doses of sand paint was applied for desert operations. The initial batch of seven Chinooks were airlifted into theatre by USAF C-5 Galaxy transport aircraft and these seemed to have retained their black undersides for operations with the Special Forces Flight, who would soon apply a unique black mottle to each of their Chinooks to counter the glow that the sand paint gave off under infra-red lighting conditions. A further eight Chinooks were delivered by sea to form part of Support Helicopter Force (Middle East). These aircraft were, less hurriedly, repainted in sand overall with single code letters and some stencilling in white. The sand paint was an Alkali Removable Temporary Finish type, easily removed with a detergent unless baked on by the desert sun!

A further variation to the sand finish was the application of three black outlined, vertical white stripes in front of the rotor head on the aft pylon to the aircraft used in support of the Kurdish refugees who had fled to the mountains between Turkey and Iraq. Four Chinooks self-deployed from RAF Odiham and a further five were diverted from their return voyage to the UK aboard the MV Baltic Eagle. A Union Jack was also added to the aft pylon and those aircraft diverted from the Gulf also had a yellow camel painted on both sides of the nose. Another, smaller, code letter was added to the nose access door, above the forward RWR, in yellow, e.g. ZA679/Z and ZD575/H. The four Chinooks that had come from the UK and Germany units, retained their green and grey camouflage and

only received the Union Jacks, e.g. ZA670/BG and ZA708/BK.

After going through the mid-life update, equivalent to the CH-47D, the new Chinook HC.2s were delivered from Boeing in overall green FS22750 and they remain in overall green to this day, though repainting after major overhaul has seen them change to Dark Green BS381C/241. Mixtures of the two greens could be seen through the late 1990s, especially if the aircraft had gone through a modification programme before it was scheduled for overhaul.

240 OCU was replaced by 27[R] Squadron, as the newly commissioned Chinook training squadron, on 1st October 1993. The training role would eventually go to 18 Squadron in 2000 which expanded to include an Operational Conversion Flight.

At least three Chinooks, ZD980, ZD574 and ZA682, were painted overall white with United Nations markings during the late summer of 1995 for use in the former Yugoslavia in support of UNHCR missions. Traces of this white paint could still be found on ZD980 four years later.

It is incredibly rare to find any kind of unofficial artwork on RAF helicopters, but during 1996 at least three Chinooks of 1310 Flight at Divulje Barracks near Split in Croatia, sported colourful pin-up nose-art. As befits their rarity I have yet to track down the identity of the 'cabs' concerned with 100% accuracy. I am almost positive that 'Thinking of England' is ZD980/EA stripped of its white paint. As the Chinooks were rotated back to the UK, this was the only art not to immediately incur the wrath of the authorities and remained on ZD980 during a 7 Squadron detachment to the USA before being removed. I can only speculate that 'Double Exposure' was ZA704/EJ but as yet 'Show Time' remains a mystery. If any readers can shed any more light please contact me at 1310@shout365.com.

The only Chinook to wear, probably, officially sanctioned art is ZA718/BN which carries the title 'The Survivor' on both sides of the forward fuselage as an epitaph to its service in the Falklands War as the sole survivor of four Chinooks sent 'down south' in 1982 aboard the Atlantic Conveyor. A couple of additions have been made in the form of 'kill' markings depicting a Land Rover accidentally blown off Mount Alice and the premature dropping of an ISO container onto the deck of the MV Brandon. Although ZA718 will always belong to 18 Squadron, it had recently returned from a tour on 78 Squadron at Mount Pleasant Airport when photographed, as depicted in the unit badges. **MAX**

26. Nose-art 3.
Chinook HC.2,
No.1310 Flight, Divulje
Barracks, Croatia,
1996. 'Thinking of
England' probably
ZD980/EA
(©Colin MacFarlane)

27. Nose-art 4.
Chinook HC.2,
No.1310 Flight, Divulje
Barracks, Croatia,
1996. 'Double
Exposure' possibly
ZA704/EJ
(©Colin MacFarlane)

28. Nose-art 5.
Chinook HC.2,
No.1310 Flight, Divulje
Barracks, Croatia,
1996. 'Show Time'
unknown at this time
(©Colin MacFarlane)

All photographs © T. Ross unless
otherwise stated

